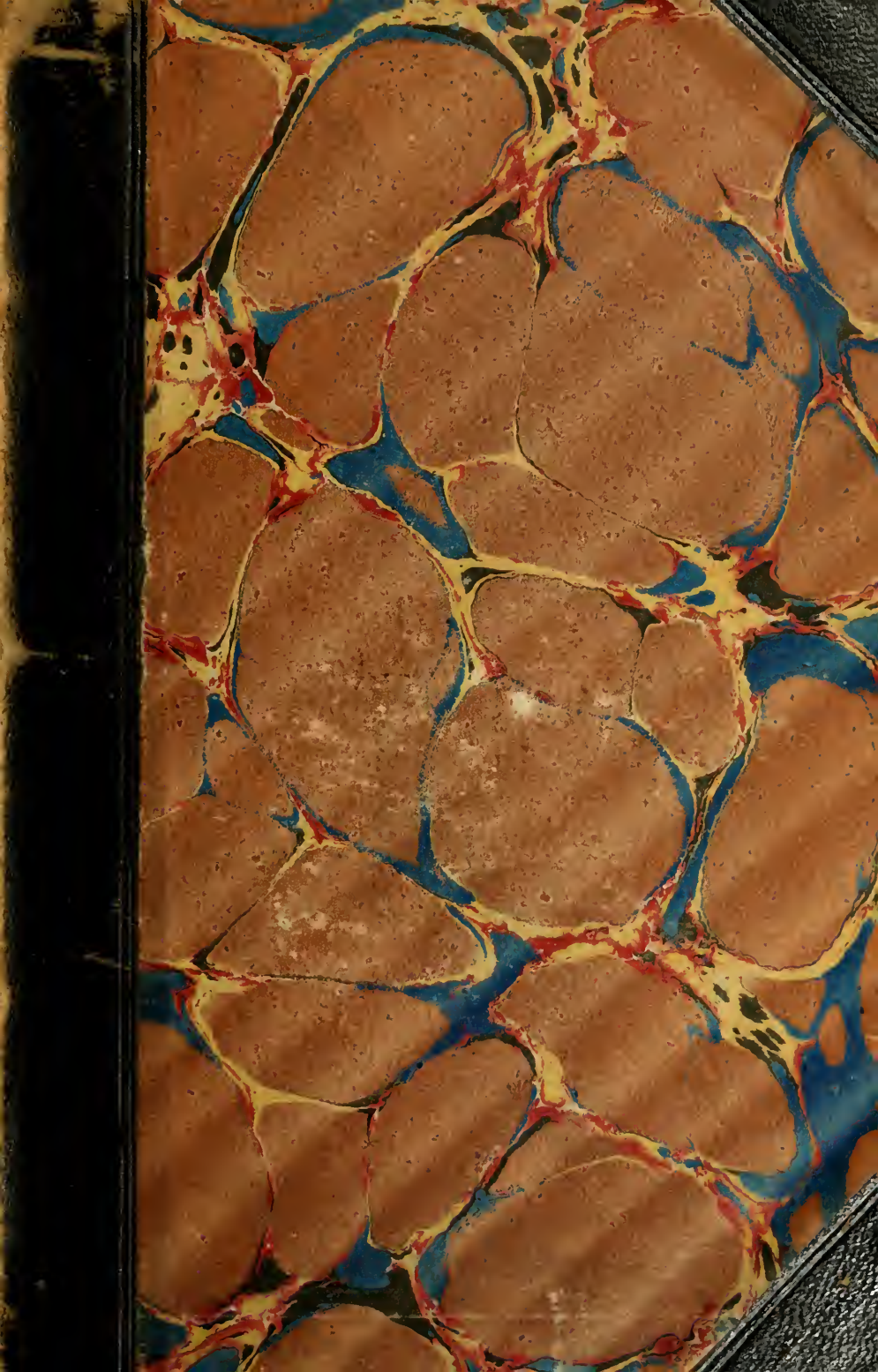




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THE
OBSTETRICAL JOURNAL

OF

GREAT BRITAIN AND IRELAND

INCLUDING

Midwifery and the Diseases of Women and Children

EDITED BY G. ERNEST HERMAN, M.B. (LOND.),
M.R.C.P., F.R.C.S. (ENG.)



VOL. VIII

JANUARY TO DECEMBER, 1880

LONDON

J. & A. CHURCHILL, NEW BURLINGTON STREET



Gallanigne Press
BALLANTYNE AND HANSON, EDINBURGH
CHANDOS STREET, LONDON

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THE
OBSTETRICAL JOURNAL
OF
GREAT BRITAIN AND IRELAND.

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No. LXXXIII.—JANUARY 15, 1880.  
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Original Communications.

ON SPONTANEOUS DILATATION OF THE VIRGIN
UTERUS, WITH HÆMORRHAGE.

By J. MATTHEWS DUNCAN, M.D.

Obstetric Physician to St. Bartholomew's Hospital.

THE word "spontaneous" is here used to imply absence of any well-ascertained cause or mechanism to account for the expansion of the cavities of the organ. Dilatation is here used to imply at least a greater increase of the cubical capacity of the uterus than could result from any change of the form of the healthy cavity.

Mere nervous inhibition is, of course, insufficient, but may have part in the causation. There is nothing attached to the uterus and growing in it, such as an ovum or a polypus. There is nothing inserted into the uterus and growing in it, such as a tent. It is difficult to imagine an explanation framed upon our knowledge of uterine polarity or of the force of increased retentive abdominal power, in other words, of altered pressure relations. Rapid and active elongation of muscular fibres is a hypothesis which has been invoked by Pettigrew* to explain, to some extent, the cardiac diastole, and other similar phenomena; but, so far as I know, it remains a hypothesis without sufficient basis.

Cases of spontaneous dilatation with hæmorrhage, after parturition, are common, and become more and more rare as time elapses, counting from the birth at term, the miscarriage, or the abortion.

* "Physiology of the Circulation," p. 217.

Dilatation of the unimpregnated organ, in connection with disease, and with or without hæmorrhage, is not rare. It is seen in cases of endometritis, and I have published in the "Obstetrical Transactions of London for 1879" a remarkable instance connected with ulceration of the interior of the uterus, and admitting of no explanation by the attachment to the fundus uteri of a fibroid which, at most, could have produced little expansion of the uterine cavity.

My cases occurred in women whose uteri were otherwise healthy; and, so far as I know, they are the only cases of the kind that have been put on record.

My cases attracted attention through the copious hæmorrhage which was present in both of them, and it is to be particularly noticed that, in both, the cervix uteri was widely open and the uterus not displaced. In both there were observed only recent clots, without any trace of advanced decolorisation.

Laboratory experiments such as those of Glenard* on the puerperal uterus are greatly desiderated in this matter.

It readily occurs to the mind that a dilated state of the otherwise healthy unimpregnated uterus is not, at least hitherto, a matter of observation in the post-mortem theatre; and on this point I would make one reflection. The open state of the uterine end of a Fallopian tube has been seen in post-mortem examinations only a very few times, very much seldomer than would be expected, considering its frequent occurrence during life. The contracted and closed state of the bladder is not rarely seen in the post-mortem theatre, and is found in homalographic sections of frozen corpses; while during life it is a very rare condition.

My first case occurred several years ago in the Royal Infirmary of Edinburgh, and the circumstances of my removal to London prevent my giving fuller details of it than I now subjoin. I was called by Dr. Muirhead to see the Sister of one of the medical wards, who was flooding. She was a pallid, black-haired lady, in whom the menopause was believed to be at hand. She was unmarried, and examination revealed virginal condition of the hymen. The flooding was copious, like that of an abortion, and it had lasted so long as to produce great anæmia and its constitutional symptoms. The vagina and uterus were filled with soft

* *Archives de Tocologie*, Aout, 1876, p. 468. See also *British Medical Journal*, October 27, 1877, p. 584.

clot. The cervix uteri was widely open, so that the finger could be passed through it into the cavity of the body of the uterus, which was expanded so as to be of dimensions equal to that of a small hen's egg. The uterus was natural in other respects, bimanual examination of a satisfactory kind revealing no deformation of it by tumour or otherwise. Ordinary treatment was used, and she recovered. The conditions found here had not previously been observed by me ; they were so like those of recent abortion that, recognising the greatest improbability of pregnancy, I made such inquiries as satisfied me that the risk of its occurrence had never been incurred.

The second case occurred in the practice of Dr. Pirie, of Dundee, and I am indebted to him for valued notes regarding it. Unfortunately, a post-mortem examination was not permitted ; but the case was so carefully observed and examined by competent men that it has positive value, even without such confirmation as an autopsy would have afforded.

This case was one of hæmophilia ; and, in that point of view, it is worthy of study. I must satisfy myself by referring those who take an interest in this aspect of it to the work of Dr. Wickham Legg,* and especially to the chapter entitled, "On Certain Hæmorrhagic Diatheses in Women."

Almost entirely from the notes of Dr. Pirie I give the following account, which I preface by his remarks, that purpura spots and bleeding gums were present during most of the illness, and that epistaxis occurred more frequently than the occasions mentioned :—

M. R., aged nineteen years and eight months ; a tall, well-nourished young lady, who has up to this illness enjoyed good health. Catamenia have been regular, but generally rather copious, the flow continuing for a week or a little more.

April, 1875.—Seized with an alarming attack of epistaxis, inducing syncope and prolonged weakness.

August 23.—Has been in good health since the epistaxis. Is now marked on arms and legs with purpura spots, which, she says, appeared soon after a quick walk to catch a train. Catamenia this month very profuse, and lasting for ten days.

September.—Purpura spots ; gums readily bleed. Went for a trip in the Highlands, according to Dr. Pirie's advice. When

* "A Treatise on Hæmophilia." London, 1872.

she reached Dunkeld alarming flooding came on, on the first day of the menstrual flow. Attended by Dr. Cuthbert, she lost a large quantity of blood, with numerous clots. Became anæmic and prostrate.

October.—About the middle of this month she returned to Dundee, pallid, waxy-looking, very weak. Strength was gradually regained, and she became able to go about the house.

November 10.—Catamenia returned, comparatively moderate in quantity, but lasted about two weeks. For a time the loss was profuse and some clots were passed, soft and of considerable size. Examination per vaginam revealed a patulous state of the cervix, which was otherwise healthy. No polypi seen or felt. Occasionally a clot in the open cervix gave the deceptive impression of a polypus. Clot could be expelled from the uterus by pressing on its posterior wall.

December.—Towards the end of this month catamenia again appeared, and after a few days became very copious. Numerous clots passed, occasionally with much pain. Anæmic, faint, pulse rapid and thready. Uterus injected with the liquor ferri perchloridi diluted with about one-third of water; this followed by immediate and continued arrest of hæmorrhage. At this time Dr. Matthews Duncan was first communicated with, who advised the iron injection, if required. After this, great improvement of general health.

January 14, 1876.—Catamenia began this day. This period passed with great loss.

February.—Catamenia not alarming in quantity.

March.—No notes kept. If catamenia did appear, the flow was not excessive.

April 11.—Health has been improving till this time. Has been out of doors, taking exercise. Takes food well. Catamenia have been present for a few days, rather copious, with occasional clots. Great weakness. As bleeding continued copiously, iron injection was again used, but in vain.

April 15.—Bleeding continues from womb, and epistaxis has begun. It continued till next day, when, after consultation with Dr. Nimmo, the bleeding nostril was plugged.

April 17.—Dr. Matthews Duncan visited her to-day. Nasal plug removed. Menses still flowing. Pulse 120. Dr. D. found the os uteri open so as to admit a finger through it and the whole length of the cervix. The finger could be pressed through the

internal os so as to detect the widely-expanded cavity of the body. The spleen was found to be large.

April 19.—As menses still flowed, a sponge tent was, at Dr. D.'s suggestion, passed through the cervix to dilate it for exploration of the whole uterine cavity. On the following day, the sponge tent having been removed, the uterus was examined by Drs. Pirie, Nimmo, and Greig. Nothing was found in its cavity, nor any tumour or deformity of uterus detected. Its walls were soft and flaccid. A drachm of liquor ferri perchloridi was injected into the uterus, causing much pain for an hour.

April 21.—Clots still coming away with red discharge. Pulse increasing in frequency. Strength failing. Is very exsanguine.

April 22.—Epistaxis severe ; nostril plugged.

April 24.—Nasal plug removed ; bleeding returned. Plug re-introduced. Os uteri plugged with lint soaked in matico infusion.

April 25.—Discharge from uterus slight, with clots occasionally. Pulse feeble, 144. Nose plugged.

April 26.—Continues as before. Uterus found filled with a clot which was expelled by pressure, was a pear-shaped cast of the uterine cavity, measured $2\frac{1}{2}$ inches in length. At the angles of its upper end, and corresponding to the position of the Fallopian tubes, was on each side a slender fibrinous cord. The upper part of the clot was firm, even somewhat tough, and the tubal cords were nearly 4 inches long.

April 27.—Unconscious.

April 28.—Died.

In the course of the treatment, iron and quinine, nuxvomica, ergot, gallic acid, iron and turpentine, were at different times given. Astringent injections of alum were used ; also the injection of sulphate of copper in powder, &c.

The only authors, so far as I know, who make any remarks bearing closely on the subject of this Paper are Kiwisch, Scanzoni, and West.

In his chapter on fibrinous polypus, Kiwisch says :*—"The apoplectic effusion can in intelligible manner be only very inconsiderable in the contracted state of the uterus, yet it is to be remarked that under peculiar, to us unknown, conditions this effusion may be connected, through continuance for a considerable

* "Klinische Vorträge." Prag. 1851. S. 472.

time, with contemporaneous expansion and softening of the whole uterus, especially, however, of the more yielding cervical canal, so that the blood-clot, as well as the cavity enclosing the same, reaches a not inconsiderable dimension." Kiwisch adduces no fact or case in confirmation of this view. It is the subject of fibrinous polypus that he is discussing; and no fact or case supporting his view has, to my knowledge, ever been published. My cases, above narrated, are of quite another kind. It is interesting, however, to note that the possibility of the expansion of the contracted uterus had occurred to his mind.

Kiwisch does not expressly suggest the possibility of the expansion of the virgin uterus, and his further remarks, as to the cases of fibrinous polypus always occurring in women accustomed to sexual connection, do not encourage the belief that he had any good reason to entertain it. Besides, it is important to add that now the opinion is everywhere held that fibrinous polypus occurs only after abortion, miscarriage, or delivery at full time. No case of its occurrence at any other time has, so far as I know, been published, or observed.

Scanzoni discusses the views of Kiwisch as of the original, and therefore somewhat imperfect, describer of fibrinous polypus. He says,* that "neither in the experience of others nor of himself is a well-made out case known in which the structure in question has become developed inside a quite normal, not dilated, uterine cavity surrounded by walls not abnormally distensible." In another passage† more pertinent to the subject of this Paper, Scanzoni says: "We cannot allow it to pass unremarked, that we remember no case where in a young individual of age susceptible of conception an in some degree copious collection of blood had made itself known in the cavity of an otherwise quite healthy uterus." In yet another passage pertinent to my subject, he says: "Let us now admit that, as appears to us in no way possible, the completely healthy, unyielding uterine walls should, by blood collecting in its cavity, to which at the same time outflow is permitted through the open cervical canal, undergo such distension that its cavity might conceal a blood-clot as big as a hen's, or even a goose's, egg."

From these writings of Scanzoni it is plain that he had, much

* "*Lehrbuch der Krankheiten der weiblichen Sexualorgane.*" IVte Auflage, 1867. S. 303.

† *Ibid.*, S. 299.

more precisely than Kiwisch, defined the open questions in this matter, and had reached definite conclusions regarding the subject of this Paper, and for this we are indebted to him. Yet we hope that we have not only clearly expressed the opposite opinion, but also corroborated, if not proved, it by cases; that it is quite possible that a healthy unimpregnated uterus may be distended so as to contain a blood-clot as big as a hen's egg, while outflow is permitted through the open cervical canal.

Dr. West* has not given any special consideration to the point we have been more particularly discussing. He agrees on the matter of the production of fibrinous polypi with Scanzoni, and appears to coincide with his views generally.

A COMPLICATED CASE OF URETHRO-VAGINAL FISTULA.

By J. H. AVELING, M.D.

Physician to the Chelsea Hospital for Women.

THE patient, aged thirty, was a little, fair, and nervous lady. During her first pregnancy she suffered much from vesical irritation, and found it necessary to urinate frequently. She was confined July 1, 1874, after a labour of seventeen hours. No instruments were used. The day after her confinement a constant dribbling of urine was noticed, but the next day she could retain it for short periods. The pain and difficulty in passing water continued, the latter symptom being relieved by inclining her body to the right. Severe tenesmus always accompanied the act.

August 30, 1875, she was again confined, after a labour of nine hours. The urine was still retained with difficulty, and sometimes flowed continuously. The patient was brought to London, and was seen by an eminent obstetrician, who, with great difficulty, in consequence of the patient's nervousness, passed a vaginal speculum, but failed to discover the cause of her disorder. He advised that she should be examined by her medical attendants at home, and that an anæsthetic should be employed. This was done, but the cause of her ailment still remained undiscovered.

November 20.—I was requested to see the patient. In passing my finger along the anterior wall of the vagina a depression was

* "Lectures on the Diseases of Women," Fourth Edition, p. 254.

felt, into which the point of a uterine sound was passed, and found to slip readily into the bladder. The cause of the incontinence at once became evident—a fistulous opening in the urethra, near the neck of the bladder. The reason why it had not been discovered before, was the passage of the speculum past the opening before the eye was used. An attempt was next made to pass the sound into the urethra from without, when the upper portion between the meatus and the fistula was found occluded. The patient could only retain her urine when in the horizontal posture. Operative measures were proposed, and she came to London.

December 8.—I pierced the occluded urethra with a fine straight knife, causing its point to emerge at the fistulous opening. A piece of flexible metallic catheter was then passed along the newly-opened canal, and its ends brought together so as to form an irregularly-shaped ring, which was worn for a fortnight with little discomfort.

December 23.—Ether was administered, and the patient placed on her back, with the knees held up by assistants. A flexible male catheter was passed into the urethra past the fistulous opening into the bladder, and the mucous membrane around the vaginal orifice of the fistula removed, leaving an elongated transverse wound, at the bottom of which the catheter could be seen. This was a useful guide in introducing the stitches, for it would have been fatal to the operation had one of them pierced the posterior wall of the urethra. Ten silver sutures were passed, and secured, by my method, with “coil and shot.” The catheter was tied in with tapes, and the patient put to bed. The bottom of a soap-dish, placed under the end of the catheter, caught the urine and kept the bed dry.

December 28.—The patient suffering much from vesical irritation, loosened the tapes; and the catheter was expelled. A new one was introduced, and the urine allowed to flow as before. It was becoming daily more loaded with mucus.

December 30—seven days after the operation.—The stitches were removed. None of them had cut out in the least degree, and the wound looked healthy and healed.

January 1, 1876.—The catheter was withdrawn and left out for three hours. When reintroduced, seven ounces of clear urine flowed. There had been no leakage. From this time the catheter was passed by the nurse every four hours.

January 3.—Difficulty in passing the catheter was expe-

rienced, and fearing the recently-united fistula might be reopened by using force, for the point of obstruction was at the seat of the operation, no further attempts were made, and the urine from this date was passed naturally. The patient went home, having perfect control of her bladder, and I felt not a little proud of the ease and rapidity with which I had cured one of these most troublesome cases.

But the patient returned again in 1878 ; for although she could now go into society and had no escape of urine, whatever posture she might be in, the same old vesical irritation and difficulty in urinating existed, if anything, to a greater degree. The operation had evidently resulted in producing uréthral stricture, for only a small catheter could be passed, causing great pain. It is possible the stricture may have been caused by my method of operating, for I had closed the wound transversely, and Dr. Emmet says, "The line of union should be in the long axis of the canal, that the formation of a band across the course of the urethra may be prevented." I advised her to return home, and let her medical attendant dilate the urethra by passing bougies, increasing in size. She took my advice, and the symptoms became less severe ; but not liking the trouble and expense of the treatment she gave it up, and soon relapsed into her old condition.

Again the patient returned, complaining of difficult urination and vesical spasm, which was worse in the morning between five and seven. She had aborted in December, 1876, in June, 1877, and December of the same year. She was once more pregnant, and was sure the irritation would make her abort. Urethrotomy was now proposed and performed, two latero-posterior incisions being made through the stricture. A large flexible male catheter was passed and retained for three days. After this it was introduced every four hours for a week, and then at intervals increasing in duration until she went home, when she was advised to have it passed once a week. This treatment gave her great relief ; but abortion took place a month after her return.

The cause of fistula in this case is not evident. I am inclined to believe it may have been produced by a calculus forced down before the head of the child at birth.

ON
THE BENEFICIAL INFLUENCE AND ADVANTAGES
OF TIMELY POSTURAL TREATMENT, FOOD,
ETC., IN THE LYING-IN ROOM.

WITH SPECIAL REFERENCE TO THE PREVENTION OF
HÆMORRHAGE AND SEPTICÆMIA AFTER
COMPLETE DELIVERY.

By G. KINLOCH HONEY PATERSON, M.R.C.P. & S., M.D.
Perth, N.B.

(Continued from Vol. VII. p. 568.)

HAVING then, in accordance with previous remarks, become more fully convinced, from experience and observations, that the ordinary posture, after complete delivery, does not always sufficiently allow of the natural flow or salutary escape of the liquid contents of the uterus and vagina during the lochial period ; and, consequently, besides hindering recovery, that it frequently gives rise, I have no doubt, to after-pains, as well as to mischief in the system, from inward uterine retention of sanguinary liquid, of coagula, or remains of secundines ; and that it tends to the risk, outwardly, of "undue loss" of blood or flooding which, although of no great extent, may yet be of a weakening nature from its frequency and from its not being timely attended to. In cases of this kind, when more grave every way in appearance, and the usually considered causes being such as a rent, or much bruising, or lacerations, either of the cervix uteri or of the vaginal walls, having taken place during childbirth, owing to the nature of the labour ; or the want of timely aid, or the over-rash use of ergot ; or the mechanical or instrumental means used : I always found the ordinary posture not only maintained too long, but an ill-adapted one (when there was either an abnormal or traumatic state of the uterus or vagina) for remedying the evils, present in like cases to those to which I have just alluded, where the poison, especially when of an autogenetic origin, may be generating and increasing to a greater extent than may be imagined by the medical attendant. Cases of the latter, years ago, come yet fresh to my mind, that of two young mothers, the one a primipara, and the other a multipara ; each had a severe labour, presentation natural, delivered in the ordinary posture, and remained in it ; but ere

twenty-four hours, in the multiparous mother, hæmorrhage outwardly showed itself and continued from day to day; in the primipara, inwardly. The odour underneath the bed-clothes, in the multiparous case especially, was highly offensive. All the means thought of, and used, were of no avail; and, after a few days, they were no more in the land of the living.*

Time-honoured customs, I need scarcely state, are not easily given up; nor should they, where there is no need for interference.

The ordinary posture in lying-in is still and may be continued for how long I know not. It was at the Glasgow Lying-in Hospital, in 1841-2, I first became acquainted with it, through a primiparous case which I attended and delivered; both mother and child did well, after a more than usually difficult labour, and I felt in no little degree elated with the success of my first case of midwifery.

It is not with any wish to change the ordinary posture, where such change is not required, that I have written at present, but only, and especially in certain cases similar to those already alluded to, because I have found the following method to be, where I enjoined and applied it, attended with more success after difficult as well as forceps cases of labour, where neither ergot nor chloroform, nor antiseptics had been used; also, in threatening cases of post-partum hæmorrhage; than the usual practice. To the carrying out of the method or plan referred to, I proceed as follows:—The labour being completed and the mother turned on her back, press and knead externally the uterus through the abdomen with both hands, from side to side, meeting at the centre; and from epigastrium downwards to pubis, carefully several times, until the uterus is felt sufficiently firm, or in a good contracted state; then, after this, have the bandage put round either next the skin or above the chemise, and in addition a good-formed pad underneath, if required. I prefer the latter mode with the wives of the working classes, as it seems to answer well; but every practitioner in attendance ought himself to see and ascertain that the bandage is properly applied, so as to give a good support, and as much as possible be a safeguard to the uterus.

* Each of the mothers referred to gave expression to sad forebodings of evil, or presentiment of some evil, and, though young, they were both married, and were no ways in want and lived good lives, respectable in their station in society—the wives of industrious men.

Within an hour from her delivery she may either gently and gradually be raised in bed to the sitting posture, keeping her in it for a minute or so before resuming the ordinary posture ; or the change of posture may be delayed for several hours ; or made at the medical attendant's next regular visit, and repeated daily until the patient is sufficiently well to be able to go about the room. Not a few, doubtless, may be apt to think this method or procedure a very bold practice, as it may appear to be in the minds of those who never deviate, or will not, from the beaten paths they have trod in, from their partiality for old midwifery, even to try to save a life by this method ; fear prevails ; danger appals them, and with such, often enough is thought to be done when nothing to the purpose has been done ; or the means used, not seldom in autogenetic cases, from adhering too much and too long, after complete delivery, to the ordinary STILL posture, have had no good effects. Since I began, several years ago, first to compress, after complete delivery, the uterus through the abdomen, bandaging well afterwards, and not allowing mothers to remain long in the ordinary posture, I have never seen happen any of the apprehended dangers, such as prolapse of the uterus, or syncope, or hæmorrhage, puerperal fever, or autogenetic septicæmia, following the method which I have so far successfully carried out, endeavoured unpretendingly to describe, and humbly bring before the profession ; but, on the contrary, every prospect of good results from it.

I prefer it to the usual plan pursued, although I do not doubt questions may be asked as to its utility or necessity ; but very plain and obvious, too, it must be to every reasonably-minded person following the practice of midwifery, who will give the required attention, that on the two postures being closely and duly considered—viz., the ordinary posture and the semi-erect posture—it will be perceived, as regards the uterus and vagina, that each posture, after complete delivery, has a different *modus efficiendi*, especially in reference to the exit or retention of the lochial discharge, or the dislodging of large clots, the remains of *débris*, &c.

The particulars of the following case, which lately came under my care, may be found not uninteresting, and may also show the advantage of the semi-erect posture after complete delivery :—Mrs. J., aged forty-six, a multipara, who was attended and delivered by me of a healthy male child, at full term. She went on well until the third day from her confinement, when I visited her ; and after I asked her if she had any uneasiness to complain of, she

replied that she could not pass freely her urine, and wished me to see what was wrong (here I must premise that I had enjoined, in her case, from the first, the semi-erect posture, which was duly carried out). I instantly made an examination and found a tough portion of the remains of the secundines appearing at the orifice of the vagina, which I cautiously extracted; it was about half a foot in length, quite in a putrid state, and of a very offensive smell. In this case I was much impressed as to the beneficial influence of the semi-erect posture, and I think there cannot be the shadow of a doubt that if the above portion or remains of secundines had not been removed at the time it was (and but for the timely semi-erect posture it might have lain concealed), my patient would have run the risk of septic poison being set up. She narrowly escaped as it was, and who can say what might have been the result. Thankful, however, I was, for has not great Avon's bard said truly—"All's well that ends well?"

The advantages of the semi-erect posture after complete delivery appears to me to be the following:—It is, or can be, easily practised; and when the uterus is found, after complete delivery, uncontracted, this posture favours not only contraction, but helps considerably to prevent undue "loss of blood," and lessens, often stops, after-pains, if present. It more speedily induces involution, and mothers recover sooner; and when autogenetic septicæmia threatens it is one of the best means I know of.

Another mode of posture, different also from the ordinary one, after lying-in is very suitable in certain cases, and will be found to answer well, good results following it:—Have the mother's shoulders and head, after complete delivery, properly raised up from the ordinary posture, by a good supply of clean bed-pillows, so placed underneath the upper part of her body as to make a *gradual incline downwards*; and enjoin that she is to lie in the same posture, excepting that she may sit up a little daily, provided she is able, until in a fit state to be out of bed and about again. This mode tends, likewise, as will be obvious, to sooner and better recovery than the usual or customary length of time for convalescence of nearly or altogether a week, if not longer; but where neither of the modes of posture I have described have been enjoined or carried out, it is not uncommon for a practitioner to hear of, or to be called on to visit, a case, either in town or country, which, on seeing, is that of a woman found suffering severely from after-pains, for the three or four days

since her delivery. A medical man has been at her bedside shortly before, and has replied to her anxious request for relief, that these after-pains were "a good sign;" such, I have no doubt, is still the saying of many at the present day—a disappointment indeed to the patient, as well as to all similarly affected, and none the less when left "to bear the ills" of after-pains; but why? when relief can be given it is surely more reasonable and humane to give all the ease by the best and safest means possible.

I cannot keep silent as to the keeping up even yet of an old custom—viz., that of not allowing mothers, after complete delivery, proper supporting food until the third day, even when all is going on with them in a fair way, and they are likely to recover; but as regards this matter I see no necessity for such abstemiousness. It is now several years back since I departed from this custom of withholding food, owing to the bad tendency which I observed it had, compared with the good results of early and better dieting, and, in consequence, sooner recovery. When all is going on well with mothers, after complete delivery, have no fear; give carefully, timely-prepared foods, either of fresh broth, beef-tea, nice gruel, and a cupful occasionally of well-made tea, with salt butter on toast, or jelly on biscuit. I see no need for whisky, wine, or brandy after complete delivery, and find most mothers get well sooner without them. When I order any of the latter drinks, I always strictly limit the quantity. Bodily *cleanliness* in bed of mothers after delivery in certain cases; frequent removal of soiled cloths, sheets, &c., about or under the bedsteads out of the lying-in room, and renewal of clean ones as often as may be found necessary is essential. Pure fresh air, seasonably let into the room; also well-timed ventilation, weather permitting, especially when the room is close and ill-aired, as many a one is still to be found "in populous city pent," are highly favourable to successful recoveries.

Thus much, then, I have aimed in this Paper to give my humble experience of what I have often found to be helps.

However, less or more, the interest each of us may have in discussing any of the problems in obstetric practice, there are times, and I trust always will be, when we feel drawn, if not conscientiously impelled, to study more attentively one or other of the subjects in that special department, and though, doubtless, we derive inestimable advantages from text-books

and other valuable allied works, still let us glean from every source, written and unwritten. In this way we shall highly qualify ourselves, and with the addition of daily experience be enabled all the more, not only to give kindly sympathy, but when pressingly and hurriedly called, by our timely aid, *once more rescue a life* in imminent peril, or save one from a fatal termination following previous lingering illness, and restore it to health and strength, these priceless blessings, again. "Human mortals, what would we more," except that each of us may go on willingly, and still ardently devoted to our ever noble mission of healing, and the truest and best interests; by preventing suffering; by so doing good, as the great Celsus of old said, thus becoming like unto the gods. The following couplet may help to keep vigorous and glad "that inward eye," letting us see how much we have it in our power, according to the opportunities given, to add to human happiness, as—

"The drying up a single tear has more
Of honest fame than shedding seas of gore."

Reports of Hospital Practice.

KING'S COLLEGE HOSPITAL.

Cases under the care of Dr. PLAYFAIR.

(Reported by Mr. SILK, Resident Accoucheur.)

CASE I.—*Pelvic Cellulitis: disappearance by absorption of an unusually large, and probably suppurated, swelling.*—Mrs. Welsh, aged thirty-five, admitted November 1, 1879. Married six years, and had four children; the first child born five years ago, and patient is said to have had an attack of puerperal fever after her confinement. Delivered with forceps in third confinement, but no bad symptoms.

Last child born four months prior to admission—delivered naturally, and had no bad symptoms until three months after, when she was unwell for the third time. On this occasion she first noticed a painful swelling in the left iliac region. There was a good deal of diarrhœa, for, during the week before admission, the motions were continuous, of a light-yellow slimy character.

A distinct, circular, fluctuating tumour could be felt in the left iliac region, extending some two inches above the level of the anterior superior iliac spine, and another firm tumour, apparently the uterus, was felt just above the pubes.

On vaginal examination the perineum was found to be completely lacerated, the tear destroying the sphincter, and extending for about three-quarters of an inch up the recto-vaginal septum.

The uterus was fixed, and a distinct, smooth, fluctuating swelling could be felt in the posterior cul-de-sac extending into the left side; this swelling could be made to fluctuate by pressure on the tumour in the left iliac region.

The woman had a worn and anxious expression, and perspired freely at times; the motions were not retained in the least. The temperature varied from 98° to 101.6° , and was of a zigzag character. The pulse was fairly good, 108 to 112. Patient was ordered poultices to abdomen, and quinae sulph. gr. ij three times a day.

She has now (December 12) been in the hospital about six weeks.

The swelling has almost entirely disappeared, and can hardly be felt at all by abdomen; by vagina the uterus is freely movable, and the swelling in the cul-de-sac is very much smaller, and has assumed a hard nodular character.

The poultices have been discontinued since December 6, and the woman has now commenced to get up.

The perineum is, of course, *in statu quo*, but so far from there being any incontinence of fæces there is a decided tendency to constipation.

The woman has much improved in general appearance, and the temperature and pulse are quite normal.

Dr. Playfair's Remarks.—This was an ordinary case of pelvic cellulitis following delivery, but it was remarkable in this fact, that although there was every appearance of suppuration, the swelling eventually entirely disappeared. Every symptom pointed to the presence of pus in the most characteristic manner; the fluctuation was very distinct; the appearance of the patient, the temperature, &c., were exactly such as are met with in suppurative pelvic inflammations. Had there been more marked pointing the abscess would have been opened at once; as it was, the operation was only delayed to allow the matter to come nearer the surface.

There can be no doubt that pus has been spontaneously and entirely absorbed.

Dr. Playfair remarked that he had never before met with an instance of this occurrence in pelvic abscess, although the possibility of large purulent collections becoming absorbed had been repeatedly proved in cases of empyema, and he mentioned a case in the adjoining Children's Ward as an example of this, in which he had removed a quantity of pus by aspiration, the pleural cavity subsequently refilling, and eventually the fluid, thus proved to be purulent, entirely disappeared.

CASE II.—*An unusual seat of Malignant Growth in the Pelvis, somewhat resembling, as to physical signs, pelvic peritonitis.*—Harriett Linaker, aged forty-five; admitted November 8, 1879. Family history good. Married, four children. Works a good deal at a sewing-machine; always regular.

First began to feel ill in the spring of the year, but does not remember distinctly how illness first began.

For the fortnight prior to admission has been getting worse; there has been some loss of flesh, a good deal of pain in the lower part of the abdomen, and some trouble in micturition. The pain is described as being of a dull character, and there has also been a similar pain in the lower part of the back. The woman on admission was found to be somewhat cachectic in appearance, with slightly enlarged glands in the groin; there was nothing to be felt by abdomen, but there was some slight tenderness on pressure.

By vagina the uterus was found to be perfectly fixed, with a distinct deposit in the anterior cul-de-sac; this deposit was firm and nodulated.

Since her admission the woman has lost a good deal of flesh. On September 11, 1878, her weight was 10 st. 11 lbs; now (December 16) it is 7 st. 12 lbs. There have been occasional paroxysms of pain, and every now and then some difficulty with the water. The temperature and pulse have been fairly normal, and there has been nothing to point to any active inflammatory mischief.

By vagina the deposit is felt to be decidedly increased, both in size and hardness; it extends much lower down into the vagina, and a somewhat similar deposit can now be felt in the posterior cul-de-sac. There is also some supra-pubic induration. The treatment has mainly been directed towards relieving the symptoms—*e.g.*, cathe-

terisation, if the bladder symptoms are urgent ; a liniment of belladonna and linimentum saponis on spongio piline to relieve the pain over the abdomen.

Dr. Playfair's Remarks.—This is apparently a case of malignant disease of the peritoneum of a somewhat unusual type, as, commencing in the fold of peritoneum between the bladder and uterus, the physical signs on vaginal examination might readily have led to its being mistaken for pelvic peritonitis. From the first, however, the nature of the disease was suspected, as the history, the total absence of pyrexia, and the peculiar hard nodular condition of the deposit, seemed unlike exudation of inflammatory origin.

The progressively increasing cachexia and wasting, the slow, steady increase of the deposit, tend strongly to corroborate this view, and, as the case is of a kind rarely met with, it seems worthy of record.

CASE III.—*Probable Cerebellar Disease.*—Albert Mann, aged five years ; admitted October 21, 1879. A brother died nine years ago, aged seven, said to have had "meningitis;" family history otherwise good.

In May, 1879, first complained of sickness and frontal headache—the headaches generally coming on suddenly, at night-time, and almost invariably being followed by sickness, and, as a rule, most severe on the left side. Towards the end of the month (May) difficulties in locomotion and a general shakiness of the limbs were first noticed.

The sight began to fail towards the middle of September. On October 6 the mother had a fall while carrying the child, the latter being much cut and bruised about the head, and remaining unconscious for two hours.

Since the fall the above-mentioned symptoms have been intensified.

On admission the boy was seen to be an extremely healthy-looking lad, with a somewhat vacant expression, but fresh-coloured, and perfectly intelligent. Weight, 3 st. 7 lbs. 12 ozs., and 3 ft. 4 in. high. Muscles firm ; head apparently enlarged (circumference $21\frac{3}{4}$ in.), but not out of proportion to the rest of the body ; chest, $24\frac{1}{2}$ in. ; arms, $8\frac{1}{2}$ in. ; thighs, 13 in. ; calf, 8 in. Tendon reflex exaggerated, especially on the right side. Muscles respond perfectly to the galvanic test. Want of co-ordination over simplest movements, shown in the uncertainty with which the fingers are placed on

any given point, in the swaying motion of the body while walking, and in the hesitating way in which the feet are placed upon the ground. Complete blindness, with atrophy of the optic discs. Tactile sensations perfect, as are also those of taste and hearing. The sense of smell is apparently impaired; strong scents—*e.g.*, eau-de-Cologne—not being appreciated in the slightest degree. Temperature, pulse, and respirations tolerably normal. No constipation or incontinence of fæces. Urine passed with difficulty; small in quantity (8 ozs. per day), high-coloured, sp. gr. 1025, loaded with lithates.

There have been two slight attacks of frontal headache since admission, but no vomiting.

Remarks by Dr. Playfair.—This case is curious from its rarity, and affords an interesting study. From the large muscular development of the child, it was at first suggested that the peculiar paralytic symptoms were due to Duchenne's or pseudo-hypertrophic paralysis, and there was undoubtedly a superficial resemblance to such cases. The well-marked cerebral symptoms, however—the blindness, increasing size of the head, &c.—point very distinctly to a central cerebral origin of the disease, probably cerebellar in its location. The case, in the absence of post-mortem examination, is necessarily defective; but, as it affords an assemblage of symptoms so unusual, seems worthy of record.

CASE IV.—*Empyema, treated by free incision, with antiseptic precautions.*—George Hand, aged four; admitted October 16, 1879, with albuminuria (one-third); no history of scarlatina, and no lung symptoms.

On October 20, slight rigor, temperature running up from 97° to 103·6°, and at about the same date dulness over the left base first noticed.

On October 25, dulness more marked; left side measures an inch more than the right; feeble entrance of air over whole left side; heart displaced to the right of median line; temperature zigzag.

On November 1, breathing feeble and jerky, 54 per minute; pulse 144 per minute; great distress. Ordinary small trochar and canula introduced below the fifth rib, but no fluid escaped.

On November 2, breathing and general distress more marked. Aspirated at 9.30 P.M. about 3 to 4 ozs. of healthy pus, drawn off with immediate relief, temperature dropping from 102·6° to 98·2°, and the breathing from 48 to 36 per minute.

On November 5, as the distress was still very great, and there was every evidence of fluid still remaining in the pleural cavity, it was decided to operate.

At 2.30 P.M., Professor Lister made an incision about 1 in. long connecting the two previous punctures. The usual antiseptic precautions were observed, and an ordinary drainage-tube introduced. During the operation between 6 to 8 ozs. of sanguineous fluid escaped, and a quantity of fibrous deposit was felt between the two layers of pleura both above and below the opening.

Since the operation the acute symptoms have gradually subsided, and with the exception of a short rise from the 11th to the 17th, which was probably due to the kidney mischief, the temperature has been comparatively normal.

There has been but little discharge from the wound, which is now dressed antiseptically about every fourth day. About fourteen days after the operation a short silver tube with a shield was substituted for the india-rubber drainage-tube, as being less irritating and cleaner.

The breath sounds can now (December 22) be heard perfectly all over the left side of the chest; the heart has gradually returned to its proper position; and, in fact, the child may be said to be practically convalescent.

Dr. Playfair's Remarks.—This case is peculiarly interesting as affording an excellent example of the application of the strict antiseptic method to the treatment of empyema in children. He had long been convinced that the great desideratum in the management of such cases was some plan by which continuous drainage could be obtained without the admission of air into the pleural cavity. In the fourteenth volume of the "Obstetrical Transactions," in a Paper "On the Treatment of Empyema in Children," he had published a series of cases in which he had attempted to do this by a system of continuous sub-aqueous drainage, one end of the drainage-tube being in the pleural cavity, the other in a vessel of water under the bed. The results were on the whole good, but the practical difficulties in the way of carrying out the process were considerable; and, in several of the cases, it was found impossible to prevent the entrance of air by the side of the tube. He had felt convinced that the antiseptic system, which admitted of the pleural cavity being laid freely open, without the risk of the exhausting effects of long-continued purulent discharge, afforded the best hope of a satisfactory result. This case, which

was the first in which he had had the opportunity of carrying it out, remarkably corroborated this expectation. In itself it was an unfavourable case, on account of its severity and the co-existence of renal complications. In spite of these drawbacks the result was most satisfactory. From the moment of the operation the child began to improve. There was next to no purulent discharge and the lung rapidly expanded. The fact that the dressings required to be changed only every third or fourth day much simplified the management of the case, and he felt convinced that the antiseptic method afforded a marked advance in the means at our disposal for the treatment of this most severe and troublesome class of disease.

ST. BARTHOLOMEW'S HOSPITAL.

Under the care of Dr. ANDREW.

Mitral Insufficiency ; Bronchitis ; Secondary Pneumonia beginning on the day following Labour ; ending favourably.

(Reported by Mr. STREET and Mr. SPACKMAN.)

M. D., aged thirty-nine, married fifteen years, seven children, last on November 4th, 1879. Catamenia appeared at seventeen, always regular. Says she has never suffered from winter cough. Had no trouble after birth of first five children. Had a severe attack of bronchitis commencing on the second day after birth of her sixth child (on March 19th, 1878), and was admitted into Faith Ward in May, 1878, suffering from this same attack, and stayed there five weeks. From the time of leaving the hospital till a day or two before her last confinement, on Nov. 4th, has had good health. She thinks she caught cold on November 3rd, and all this night had a shivering feeling ; she afterwards got very hot and sweated profusely.

Nov. 4th.—Confinement on Nov. 4th, child born at 4.40 P.M., pains said to have begun at 11 A.M., and liquor amnii escaped at 3.30 A.M. on Nov. 4th. No chest symptoms or complaints noticed at this time.

Nov. 5th, 4.30 P.M.—Has not slept since confinement ; has slight cough, and complains of pain in right hypochondrium. Lochia scanty. No abnormal sounds detected on examining chest. Pulse 132.

Nov. 6th, 5.30 P.M.—Has slept fairly well. Taken food pretty well. Bowels open. Respiration rapid but not laboured; no pain. Lochial discharge copious, not offensive. Pulse 124, T. 103·6.

Nov. 7th, 12 noon.—T. 103·8, P. 124, R. 38. Has not slept; cannot take food. Bowels open three times after ol. ricini. Lochia scanty, not offensive. No pain except on the right side, with cough. Perspirations rapid and laboured. Sputa slightly rusty. No definite physical signs of pneumonia; no friction sounds.

4.15 P.M.—T. 104·6, P. 124. Considerable dyspnœa. Both lungs extensively affected with bronchitis before and behind. On the right side a small patch of lung below the axilla and at the base was slightly but distinctly dull to percussion; over it there was absence of vesicular respiratory murmur, with tubular breathing and increase of vocal vibrations and resonance. A loud mitral systolic murmur was heard. Patient was admitted into Hope Ward, under the care of Dr. Andrew. The pneumonia increased in extent for a day or two, and came to a crisis on Nov. 11th, when the temperature fell to 97·6.

From Nov. 9th to 13th she was more or less delirious, and was wildly so on night of Nov. 10th. Delirium not observed before Nov. 9th.

The bronchitis was much relieved when she was discharged on Nov. 28th, but she suffered from it during the whole of her stay in the hospital. The mitral insufficiency was well marked for some days, then gradually disappeared. The murmur was heard on Dec. 9th; had almost disappeared on Dec. 15th, when the heart sounds were not quite healthy, but it was very hard to say whether a murmur was present or not.

Nov. 8.	T.,	Morning,	103·2	Evening,	102·6	P.	114
" 9.	"		100·2	"	102·2	"	—
" 10.	"		99·4	"	102	"	—
" 11.	"		97·6	"	97·4	"	—
" 12.	"		97·2	"	97·2	"	78
" 13.	"		97·2	"	98·2	"	—
" 14.	"		—	"	—	"	96

Notices and Reviews of Books.

Etude sur l'Exploration et la Sensibilité de l'Ovaire, et en particulier de la Douleur Ovarique chez la Femme Enceinte. Par Henri Chaignot, M.D., Paris, Ancien Externe des Hopitaux, &c. &c. Paris, 1879. Pp. 108.

Study on the Examination and Sensitiveness of the Ovary, and particularly of Ovarian Pain in the Pregnant Woman. By Henri Chaignot, M.D., &c.

THIS is a thoughtful, well-arranged, and carefully-written monograph on a difficult and obscure subject, which would be valuable, had it no other merit, for the account of the literature of the subject which it contains, and the many references it gives.

The following are the conclusions which the author draws: we give them nearly in his own words:—1. Abdominal palpation over the sides of the uterus, in the later months of pregnancy, may produce a sudden and sometimes very severe pain. 2. This pain is produced by pressure; is always transient and definitely localised. 3. It only appears when a small, nearly oval, movable tumour is pressed against the uterus. The author believes, with M. Budin (who first expressed this opinion), that this little tumour is nothing else than the ovary, the compression of which is painful. As this proposition is the most important of them all, we summarise the reasons by which the author supports this view. (*a*) Its position: the tumour is deep-seated, and cannot be felt when the abdominal muscles are contracted; it is, therefore, neither in the muscles nor in the skin; it is attached to the uterus, is movable on it, to the greatest extent in a transverse direction, but cannot be separated from it; it is more plainly felt during uterine contraction. (*b*) Its characters: it is hard, solid, of oval form, its long diameter nearly vertical, about the size of an olive, and a cord can often be felt running downwards, fixed above to the uterus, and terminating in this swelling. (*c*) Its site: in the lateral part of the abdomen, the one on the right side being generally lower, deeper, and further from the middle line than that on the left, in consequence of the usual lateral inclination and rotation of the

uterus. (*d*) It descends when the uterus is emptied of its contents. (*e*) When the round ligament can be made out, this tumour is always above and behind its most prominent part. (*f*) The constancy with which these signs are found in combination. (*g*) Lastly, in a case in which (at the Paris Maternité) the pregnant uterus and ovaries were removed on account of contraction of the pelvis this pain and tumour were present; and when the abdomen was opened this tumour was found to be the ovary. 4. It is usually necessary, for the production of the pain, that there should be a resisting surface behind the tumour (such as the back of the fœtus, or the contracted uterus). 5. It is more frequent on the left side (on account of the usual position of the uterus bringing its left lateral surface more forward than the other, and of the frequency with which the back of the fœtus is in front and to the left). 6. Its place of election is in the neighbourhood of a line passing from the anterior superior iliac spine to the umbilicus, but generally some centimetres above it. 7. The author does not think observations are numerous enough to prove the occurrence of spontaneous ovarian pain during pregnancy and childbed, but he believes it possible. (By "spontaneous ovarian pain" the author means pain identical with that caused by external palpation of the ovary, but produced by movement of the patient, contraction of uterus, or some such "spontaneous" exciting cause. He does not refer to the pain of ovaritis.) 8. After delivery the ovarian pain can in some cases be again found. Its seat is then below the line running from the umbilicus to the anterior superior iliac spine.

The Advantages and Accidents of Artificial Anæsthesia. A Manual of Anæsthetic Agents and their Employment in the Treatment of Disease. By Lawrence Turnbull, M.D., Ph.G., Aural Surgeon to Jefferson Medical College Hospital, Physician to the Department of Diseases of the Eye and Ear, Howard Hospital, Philadelphia, &c. &c. Second edition, revised and enlarged. London: H. K. Lewis. 1880. Pp. 322.

This work is a compilation of published matter relating to anæsthetic agents. It is chiefly made up of quotations from other authors, among whom British and American predominate; the author preferring (and we think choosing wisely) to give the opinions of the writers he makes use of, and the records of their

experience, as much as possible in their own words. He has evidently read extensively, and has apparently compiled, on the whole, with care, although his matter is not very well arranged, and we now and then meet with clerical errors in his work. The book is not, however, entirely a compilation, for the author comments on the accounts that he quotes, and narrates many cases which have occurred in his own practice.

Dr. Turnbull describes fully and carefully the mode of preparation and the chemical properties of the compounds whose use he describes, entering into the details of this part of the subject in a manner which shows that he has given much attention to it. In describing their effects upon the human body, the theoretical aspect of the subject seems to have but slight attractions for our author. He is clearly a practical man, and looks at the matter from a practical point of view; hence we find that the clinical advantages and disadvantages of the different anæsthetics engage his mind more than their physiological action and pathological consequences. The book therefore cannot be said to be exhaustive. And there is a good deal in it that might be omitted without detriment to its utility, such as numerous reports of cases which do nothing but repeat descriptions of practically identical phenomena, the important part of which might be compressed into a few lines; and quotations in which different authors deal with the same subject, and say the same thing, but in other language.

The work has the advantage over similar manuals on the same subject of being more modern. The author draws upon the latest publications, and discusses the most recently introduced agents for anæsthesia. We cannot say that the book makes any considerable additions to our knowledge; but it contains much useful information, and therefore will be useful to those who wish to have at hand in a small compass some account of what has lately been written concerning anæsthetic agents.

The following are briefly the practical conclusions of the author as to the anæsthetic to be chosen in different circumstances:—
 “For all minor operations in surgery . . . nothing has yielded us such satisfactory results as *hydrobromic ether*. For all dental operations (except tedious and protracted dissections on the mouth) the safest anæsthetic is *nitrous oxide gas*. . . . For dangerous and protracted operations . . . the pure *ether*: the proofs of its safety are full and complete. Chloroform, as an anæsthetic, has a long and painful record of valuable lives lost

from the period of its introduction to the present day, so that no one is justified in using it unless the ordinary agents specified above fail him, or unless he has to apply the actual cautery." The anæsthetic first mentioned, hydrobromic ether, is one which the author claims the credit of having introduced. He has used it in twenty-five cases, in only four of which vomiting occurred ; and in none was there any symptom causing alarm to be felt concerning the patient's life. Its advantages are considered to be the pleasantness of its smell, and the rapidity of its elimination, which is said to take place by the respiratory passages. The author confines his recommendation of it to minor operations only, not because he distrusts the agent, but because he has not yet tried it in a protracted operation.

Correspondence.

"DEATHS IN CHILDBED AND OUR LYING-IN HOSPITALS."

To the Editor of "The Obstetrical Journal."

SIR,—I am greatly pleased with the interesting Paper furnished by the Reviewer of my book in your December Number, but I shall be obliged if you will receive and publish this note about it in your next issue. It is, of course, my privilege and duty to receive *matters of opinion* expressed in a Review of my work—this I gratefully and cordially do and value—but it would be alike derogatory to the high character of your Journal and Obstetric Science did I not at least endeavour to point out, with a view to rectification, errors as to *matters of fact* in connection with the subject in hand.

1st. The commentator states :—"The book contains numerous tables of statistics . . . being mainly taken from the works of Miss Nightingale, Dr. Le Fort, Dr. Matthews Duncan, and others, but which together form an interesting collection of facts."

I could not adequately convey my indebtedness to these distinguished authorities, but I have humbly tried to acknowledge my appreciation of their marvellous labours, in the text itself ; and also, wherever I made use of their tables I inserted their names. But seeing it affirmed that the statistics I used were "*mainly*" theirs,

I was surprised ; and I had the curiosity to look into the subject, and I find :—There are in all no less than fifty tables of statistics, and that I am indebted to Miss Nightingale for five tables, to Le Fort for three, to Churchill for three, to M'Clintock for two, to Duncan, Kidd, and Simpson, for one each—these sixteen have more or less appeared in several medical works ; and in my opinion I could not avoid using theirs less, seeing that I was attempting to illustrate the wrong uses statistics sometimes are put to, and at the same time to elucidate clearly the difficult subject I was discussing. Indeed, these may now be reckoned as common property. To Annual Reports of Medical Charities I am indebted for five, to the Reports of the Registrar-General for three : these eight have never appeared, to my knowledge, in any medical work. A few more—perhaps three—have been changed, so that they never appeared at all in their present form, and it would be wrong, unfair, and unwise, did I attribute them to any author. More than twenty tables are quite new, and in this light some of them have been regarded by one of our highest authorities.

2nd. In reference to the plan of building, which I have advocated as the best for lying-in purposes, the reviewer states :—“ It is to be on the cottage principle, the cottages to be fifteen feet apart, but connected by a corridor.”

As a fact, this is quite wrong. I have advocated unmistakably that there should be *no corridor connecting* the cottages. The intercommunication thus attributed to me would, in my opinion, vitiate a chief element in the plan—based as it is on the principle of isolation. One cottage has no communication with another. This explanation, I hope, may still further enhance the system I have advocated, and more fully justify the weighty opinion of the writer, which is :—“ There can be no doubt that this plan of building is far preferable to that of any other lying-in hospital now existing in England.”

3rd. I will only now allude to one point more : the writer says—“ Making the author's estimate of 15,000 gratuitous deliveries at home in London every year, the proportion of these to the population does not fall far short of the proportion of hospital deliveries to population, even at Dublin. And we are inclined to think that the number—15,000—must be too low an estimate, for in three only out of the numerous Charities—namely, those of Guy's and St. Thomas's Hospitals, and the Royal Maternity Charity—the deliveries in 1876 were 7111.”

To cast a doubtful suspicion on a statistical fact is not satisfactory, and, I should think, unnecessary, because the data may be more or less easily ascertained, at least approximately. To save my critic trouble, I here gladly supply them:—"The lying-in patients attended at Guy's number 2234, at St. Thomas's 1503, St. Bartholomew's 1200, Middlesex 850, London 620, King's College 618, St. Mary's 245; total at these seven hospitals, 7470. The patients attended in their homes at the four lying-in hospitals, are—The British Lying-in 700, Queen Charlotte's 686, General Lying-in 827, City Road 509; total, 2713. The following four hospitals—St. George's, Charing Cross, University College, and Westminster do not give the number at all, so far as I am able to ascertain; but if the seven General Hospitals, with about 3417 beds, attend 7470 women in labour at their own homes, we may reckon that it will be at least ample if we allow that 1500 cases are attended at the four hospitals referred to with about 800 beds; generally speaking, at these four hospitals, it is asserted by those who seem acquainted with the subject, that proportionately the medical pupils at them attend fewer labours than the pupils at the other seven. The number of women attended at their own homes in their confinements in connection with the *eleven* teaching hospitals, together with those at the four lying-in hospitals amounts therefore to about 11,863. If to this we add the number attended annually at the Royal Maternity Charity, that is, 3000, we have a total somewhat under or about 15,000. The number similarly attended at their own homes in Dublin, in connection with the Medical Charities, is 3000 (that is, one in every third confinement in Dublin, instead of one in every eighth in London); but, as Dublin is at least twelve times smaller than London, there should thus be 36,000 so attended in London instead of 15,000. If the truth is brought out, the number in London ought to be above 40,000 to make the proportion in the two cities the same, and undoubtedly there are more poor, destitute, and needy women in the hovels and dens of the metropolis, with its teeming millions, who require relief quite as much, if not more, than the humble poor do in Dublin, where the same extent and kind of vice and misery do not prevail.

I am, dear Sir,

Your obedient and faithful servant,

Æ. MUNRO.

[1. We are still of opinion that Dr. Munro's statistics contain nothing very novel. If, on his own showing, "more than twenty" tables out of fifty are quite new, these do not amount, even numerically, to the main part of the whole; and it is to be considered, moreover, that number is not the sole test of importance.

2. In the engraving of the back elevation of the proposed hospital, opposite page 126, is shown an open corridor, covered by a glass verandah, on the level of the basement story. This is called by Dr. Munro a "pathway." It is doubtless free from the disadvantages of a closed corridor.

3. Dr. Munro does not state to what year his figures apply. The total number of deliveries for the three Charities was correctly quoted in the Review as 7111 for the year 1876, or 374 more than the same total according to Dr. Munro. The numbers also show a general tendency to increase year by year, and, for the year 1878, the same total amounted to 7556, or 819 more than the number given by Dr. Munro. Again, Dr. Munro has omitted to ascertain the number of deliveries in the Charities of University College, St. George's, Charing Cross, and Westminster Hospital, but estimates the total of these four at 1500 cases. But in the year 1878 the number of deliveries in the Charity of University College alone was 1563, or more than the number allowed by Dr. Munro for the total of all four Charities; and the London Hospital, which Dr. Munro puts down as attending 620, now attends more than 1100. Our suspicion that the total number was somewhat under-estimated, which Dr. Munro has been so obliging as to endeavour to correct, appears therefore to be abundantly confirmed.—ED.]

Abstracts of Societies' Proceedings.

OBSTETRICAL SOCIETY OF EDINBURGH.

Meeting, Wednesday, 23rd July, 1879.

Dr. WILSON, *President, in the Chair.*

Dr. L. Lindsay Rowland, M.D., Oregon, U.S.A.; Mr. A. W. Oakes, and Mr. John Johnston were admitted Ordinary Fellows.

I. Professor SIMPSON exhibited a fibroid polypus removed by means of the *écraseur* from an elderly patient who had been

subject to frequent losses of blood. The peculiarity was that it grew from the cervix uteri on the right side. He could only remember to have seen one other instance of a fibroid tumour originating clearly, as this had done, in the cervix.

II. Dr. HART exhibited a placenta from a case in which he had induced premature labour. The patient had been pregnant thirteen times, but only one child had been born alive, the others having always died about the full time. On this occasion he brought on labour in the usual manner at the eighth month. As the placenta got separated by the bougie employed to detach the membranes, he was obliged to dilate quickly with Barnes's bags and turn. The child was born alive, and is now doing well. The mother made a good recovery. During the whole labour there were no pains, but the third stage presented no difficulty.

III. Dr. JAMES CARMICHAEL exhibited foetus and placenta, fourth months', from a patient attended by a pupil at the New Town Dispensary. From the appearance of the placenta it was evident that hæmorrhage had taken place, causing extensive separation. There was a large mass of clot, almost as big as the placenta itself, adhering to the maternal surface, and numerous extravasations could be observed immediately underneath the membranes.

IV. Dr. KEILLER read a *Report of Cases* treated in the New Maternity and Simpson Memorial Hospital in the first quarter, during which time he has been on duty. He trusted that in future there would be regular reports published from the practice of the hospital.

Indoor Cases.—Total number of cases, 62 : in May, 21 ; in June, 22 ; in July, 19. Of these there were—Multiparæ, 23 ; primiparæ, 39. There was one abortion at the third month, and one case of twins—the total number of children born being thus 62. The relative sexes of the children were—Male, 29 ; female, 33. There were in all 7 stillborn children—3 being putrid, and 2 premature.

There were 4 fatal cases as regards the mothers. The causes of death in these cases were as follows :—In 2 cases, puerperal peritonitis ; in 1 case, septicæmia ; and in 1 case, renal disease, the patient being almost moribund on admission, and premature labour having been induced.

The various labours may be classified as follows :—1 case of precipitate labour, 8 cases of laborious labour, 2 cases of complex labour, 1 case of abortion, and 50 cases of normal labour.

The presentations were as follows :—In 1 case, left occipito-posterior ; in 1 case, right occipito-anterior ; in 2 cases, right occipito-posterior ; in 3 cases, breech, all left sacro-anterior ; in 1 case, twins—the first child presenting by the breech, left sacro-anterior, the second by the head, left occipito-anterior ; in the remaining 53 cases, left occipito-anterior.

There were in 2 cases well-marked knots on the umbilical cord, in 7 cases battledore placenta, and in 8 cases the cord was twisted round the child's neck.

There was 1 case of hæmorrhage in the third stage of labour. There were 4 cases in which the perineum gave way to the extent of $1\frac{1}{4}$ inch, and in each case the child was unusually large. There was 1 case of retained placenta, owing to hour-glass contraction of the uterus.

There were 2 cases in which, the child being apparently lifeless, artificial respiration and other means were successfully used.

There were 6 forceps cases, and 1 case in which premature labour was induced. Lastly, there was 1 case in which pregnancy was complicated with a double ovarian cyst.

Average number of cases for last six quarters was about 53 per quarter ; this quarter there were 62. Average ratio of forceps cases this quarter, 1 in 10 ; last six quarters, 1 in 16.

Outdoor Cases.—Total number of cases, 90. Of these there were—Multipara, 76 ; primipara, 14. There were 92 children born altogether—48 boys, and 44 girls. There were at 11 stillborn children, and of these there were 2 putrid and 2 premature.

There was only 1 case fatal to the mother, the cause of death being puerperal peritonitis.

The presentations in the various labours were as follows :—In 1 case, left occipito-posterior ; in 1 case, superior extremity ; in 2 cases, right occipito-anterior ; in 6 cases, breech—all left sacro-anterior ; in 80 cases, left occipito-anterior. There were 4 cases of twins, the presentation being breech and head in every case, but one in which both heads presented.

There were 2 cases of abortion, causes unknown ; 3 cases of premature labour ; and 3 cases in which the child was born with a caul.

There were 2 cases of retained placenta—in one case from hour-glass contraction, in the other from adherent placenta.

There was 1 case of post-partum hæmorrhage.

There was 1 case of placenta prævia, labour occurring at the end of the seventh month.

There was 1 case of forceps, instruments being used owing to pelvic contraction.

There were 3 cases in which turning was performed—in 1 case of placenta prævia, in 1 case of presentation of the superior extremity, and in 1 case of rupture of the cervix uteri, in which also the child was of enormous size.

Average number of cases for last six quarters, about 125 per quarter. Average ratio of forceps cases during last six quarters was 1 in 35 ; this past quarter it was 1 in 90.

Having been urged to give a communication before the Session closes, we have been induced to present a Report of the cases treated in connection with the New Maternity and Simpson Memorial Hospital during its first quarter, in order to inaugurate a practice which it will be well to continue for the future, as the statistical and other benefits derivable from carefully kept records of special hospitals, with the view to their extended utilisation, cannot be doubted.

It so happened that our quarter's rotation of service just terminated began with the opening of the new hospital, and we consider ourselves fortunate in having the privilege of offering its first Report to a Society with the proceedings of which Simpson's name and fame were so long and so honourably associated. We cannot feel otherwise than assured that "The Edinburgh Obstetrical Society" will hail with satisfaction the achievement at length gained, in the erection of a suitable maternity hospital, and welcome from time to time the special reports of its practice, which we have now the pleasure of inaugurating, and which, we doubt not, will be ably followed up by our colleagues at the termination of each of their quarterly periods of duty.

It might, perhaps, prove not uninteresting were we to preface our remarks regarding this new hospital by giving some personal experiences of its predecessors ; but although full of obstetric and other well-remembered associations, on which we might, did time and space permit, descant at some length, we shall in the meantime refrain from doing so.

When we say that our services extend over the period during which the homes of the institution have been so numerous and so

varied, as to include most of the old sites and frequently changing lying-in houses embraced in the struggle for a proper resting-place which has at last been secured ; when we mention that our official connection with the charity started in St. John Street, and has since then accompanied its forced wanderings into Milton House, Minto House, Chapel House, Watson's Hospital, back again to St. John Street, and until now when it has become safely housed at Lauriston ; when we thus confess to such a course of acting and ageing in the maternity cause, it need not seem surprising should the obstetric history of our old associate Simpson be well known to us, for of a truth we now can think and look back with a lively interest on the long and anxious hours often spent in friendly co-operation with him, while directing and overcoming many difficult maternity and other cases, and have good reason to regret that proper records of what would now have been considered of unquestionable value were not duly preserved, if for no other reason than that of proving Simpson's early exhibited acumen, and the singularly ready practical resources which he at that time possessed, and afterwards so successfully utilised, as ultimately to stamp his name and fame among the ever-living "men of their time."

This Society, which Simpson did so much to keep alive by his studied attendance and brilliant example, while illustrating the fruits of his genius and ripe experience, cannot fail to appreciate and acknowledge with the utmost satisfaction the new association of his name with that of an institution from which and through which the practical interest of our meetings has hitherto been, and will doubtless still continue to be, greatly enhanced. In addressing this Society, on a former occasion, on the onward progress of obstetric science and art, we considered it as an act of simple duty towards the memory of Simpson's special services, to point to the minutes of our meetings and the records of our proceedings during the many years in which he proved himself not only the most active but by far the most distinguished member ; and now that our justly celebrated *confrère* has, through the unsparing scythe of Time, "ceased from his labours," and left his deeds and "memories," as all must eventually do, to the due consideration and just acknowledgment of those capable and desirous of judging them aright, this, the "Edinburgh Obstetrical Society," the scene of much of his accomplished work, is in a very special sense bound to express

its approbation of what the acting committee, together with the directors, have at last achieved, in permanently associating his world-wide name with an institution in connection with which so much of his time and attention were devoted, and whereby the "Simpson Memorial" will be strengthened in a practical and otherwise most fitting direction. In taking this opportunity of referring in so special a manner to our New Maternity being also made a Memorial Hospital of our old friend and associate, we feel assured that not only all connected with this Society, but the public generally, heartily concur in the wisdom of those who have carried out their well-devised scheme of so appropriately utilising a liberal portion of the subscribed "Simpson Memorial Fund."

The new premises having been designed expressly for those of a special hospital, and the greatest care having been taken to make it in every way suitable, both as regards the arrangement of the wards and sanitary appliances, the whole aspect and working capabilities of the building present a very marked difference from the places which formerly were only temporarily adapted for the purposes of the institution.

The central block and east wing are only now built, but it is contemplated that the finances of the institution will ere long be in a sufficiently flourishing condition to admit of the completion of the whole architectural plan by the erection of the western wing, which will nearly double the present accommodation for patients. The newly provided wards, which are lofty, lightsome, and exceedingly well ventilated, can accommodate about thirty cases, each of the two long wards having conveniently situated at one end a lavatory, nurses' room, and other conveniences, which are cut off from the body of the wards by roomy and well-aired lobbies. The rooms appropriated for the resident medical officers, medical committee, matron, dispensary, and for general domestic purposes are large and ample, and all arranged on the best modern principles. The kitchen and household offices, together with servants' and other rooms, are situated on the ground floor, while the attic flat of the building is arranged for the sleeping accommodation of nurses, neat and well-aired cubicles being specially fitted up as their dormitory apartments. The hospital, in its sanitary and other arrangements, may therefore, so far as its completion and possession have yet gone be considered a success, inasmuch as it ought now, much more than heretofore, to be

fitted to dispense its special benefits upon a very needy class of the suffering poor, and still further to prove an important centre of clinical instruction from which the salutary lessons of practical experience may emanate. While we heartily concur in the wishes which were so enthusiastically expressed at the public opening of the hospital towards the accomplishment of the merciful and scientific objects for which the institution is specially designed, we may venture to question whether the dream and desire of Simpson, as was said on that occasion, had yet been realised, so far as maternity accommodation is concerned. We doubt not that, failing the securing of his favourite project of a "Cottage Hospital," for which his voice was often ably raised, he would have rejoiced to witness a Maternity such as we now can boast of, and have proudly acknowledged the honour conferred in perpetuating his memory, by so specially identifying his name with that of an institution erected for the purpose of promoting the knowledge, and extending the benefits, of that branch of science and art in which he so greatly distinguished himself. Had he, however, lived to give his counsel regarding a new maternity hospital, he would in all likelihood have striven towards securing, as far as possible, the practically carrying into effect the notions he strongly entertained and strenuously advocated in regard to the danger of having lying-in patients in too close proximity, such as cannot well be avoided in ordinary hospital wards. The correctness of Simpson's views in regard to the evil consequences of undue aggregation, and the importance of studying to secure the more wholesome influences of segregation in parturient cases, is quite beyond dispute, this question now being one of expense rather than of principle, for the difficulty of carrying out the cottage idea, especially in cities, where hospital accommodation is generally most required, must be obvious. But now that the "Simpson Memorial Hospital" is so far completed, although not in accordance with his "cottage" scheme, it might be well to make the best of the premises in that direction, and which might be done by so planning the west and yet-to-be-built wing that, instead of being a repetition of the eastern division—which chiefly consists of two large wards—it would contain a series of comparatively small and sanitarily arranged apartments for the better segregation of patients, and more satisfactory selection and admission of married women who may desire the comforts and treatment which a hospital ought to afford. Another and most necessary advan-

tage might thus be attained—viz., that of the being better provided to meet the emergencies which occasionally occur in regard to contagious influence—from want of due accommodation to facilitate the required separation of septic cases—which tend so frequently to increase the mortality in such hospitals, and which, moreover, in this respect also is of no mean consequence even from a nurse point of view ; for it is well known that the safe tending of lying-in patients demands extreme attention, when affected nurses on the one hand, or infected patients on the other, require timeous separation. The welfare of patients while passing through the dangers connected with child-bearing is more a matter of safe and judicious nursing than is generally supposed ; and as the prevention of so-called blood-poisoning, from whatever source arising, is of the utmost primary import, every precaution should be taken in this, as in every other direction, to diminish the chances of septic influence, which often so stealthily favours puerperal mortality. We may take another opportunity of discussing this subject at greater length, and only refer to it now to indicate the importance we attach to safe and judicious maternity nursing, and especially in regard to what we always dread in maternity hospitals—viz., the occurrence and propagation of puerperal fever, and which should make us look to our nurses as well as to the proper and sanitary construction of buildings intended for maternity purposes. It too often happens, when this dread of the accoucheur appears in hospital wards, that it is exceedingly difficult to check its progress, except by immediate separation of the affected patient : otherwise it may be necessary to refuse further admissions, if not to shut up the wards during its prevalence ; and therefore the vast importance of having the hospital arrangements such as to admit of the necessary treatment of the cases rendered as safe as possible, which can be done only by having abundant separate accommodation such as we have here indicated.

Besides the clinical instruction of medical students and young practitioners, there is the other important educational object of the institution—viz., the special and practical training of midwives and nurses. The necessity for providing good and intelligent nursing, not only for the welfare and comfort of lying-in patients, but for the required and proper assistance of their medical attendants, cannot be gainsaid. The onerous duties of the obstetric practitioner are often greatly influenced by the character and conduct of the nurse he may have to meet or employ ; for while the

presence and aid of a competent and otherwise reliable tender will usually go far to relieve anxious cares, they may be annoyingly increased through the stupidity and untrustworthy awkwardness which so frequently belong to ignorance. Fortunately, nowadays, a marked difference is noticeable between the modern well-trained nurse and her fast disappearing and less fortunate predecessor—the old-fashioned, tawdry, and comparatively useless, if not even dangerous “howdie,” and which may be easily accounted for by the superior attention given to their education by their special teachers, and in the better arrangement and more extended accommodation provided for their educational supervision and practical training in hospitals.

These important points have been studiously considered in the construction and arrangement of our new Maternity premises, which have not only provided superior accommodation for a larger number of nurse-pupils, but an arranged scheme for their regular and efficient instruction, under the special teaching of the visiting physicians and the clinical assistance of the resident medical officers.

To meet the demand for admission of nurse-pupils the question of ample accommodation will appear, especially when it is considered that the over-crowding of nurses into one dormitory, even such as that arranged in the new hospital, may possibly lead to mischief, should any of them be required to devote their attention to fever or other contagious cases.

The present is an era in the history of the institution, which, notwithstanding its necessity and unquestionable claims on the sympathy and support of the charitably disposed, has hitherto been sadly overlooked, being too long left without a settled home, begging its existence as if the mendicancy of illegal maternity should be unfelt-for and unrelieved. And while in the mood of referring to this matter, it may not be considered inexcusable further to remark, in the interests of this and similar institutions, that the more special purposes for which maternity hospitals exist are by too many considered not in accord with the spirit of propriety; and the doubt thus occasioned leads them to withhold their countenance from such institutions, on the ground that ordinary sympathy is here not only unmerited but dangerous, because of the possibility of diminishing the poignancy of the brand which, forsooth, ought to be allowed to rankle unheeded and uncared-for in the tried hearts and saddened consciences of poor

maternity unfortunates. It is difficult to discover even the shadow of reason in the absurd idea that maternity hospitals tend to foster the departure from virtue on the score of their mercifully proffered protection and care. Those who imagine that the frailty of woman is such as to lead her into special folly because of her knowledge as to where, in the event of a dire necessity, she may pillow a weary head and suffer a painful shame, are wrong in fancying that even the boldest or the frailest of the sex ever brave the risks of maternity with the view or for the purpose of gaining admission into a specially provided hospital. Apart, however, from all this, besides yielding succour to such in their sorest time of need, when they cannot command even a temporary home, the advantages of the charity to married and needy applicants, who will now more than ever be induced to take advantage of the comfort which the new hospital affords, cannot be doubted.

In presenting a medical report, it may be out of place to dwell on hospital buildings rather than on cases, but there are exceptional circumstances which go far to justify the adoption of such a course as that now pursued ; and seeing that it is our intention, as it will be our duty, to extend our report so as to remark on some of the more interesting cases which it contains, an ample enough excuse will, we trust, be found in the special interest taken in the "New Royal Maternity and Simpson Memorial Hospital ;" and should any more cogent reason be deemed necessary, we plead that of our being not only the senior acting medical officer of, but the first officiating physician in, a recently acquired and newly opened hospital, the history and progress of which will now be more strictly inquired after.

In presenting the first report of what we hope will prove the beginning of a long-continued record of an institution, the previous history and proceedings of which have not hitherto been duly preserved, we trust that what we have here feebly expressed will tend to promote the public recognition and support which it deserves, and that, as the beginnings of new, like the early tracings of old, and especially of charitable, institutions frequently prove of no small interest and importance, the observations now made in connection with the opening of this hospital may on this score also prove acceptable.

Although the old Maternity Hospitals and those associated in the working of them have been long actively engaged in conferring

merciful benefits, and promoting the educational objects of the charity in the always important department of practice for which institutions of the kind are specially designed, it cannot be doubted that the better and more complete arrangements provided in the new hospital will go far to fortify the efforts of those engaged in the practical and tutorial duties connected with the institution, and thus enable them to keep up the obstetric character of the school which Simpson laboured so much and so well to establish, and which doubtless makes the present occasion of associating his name with the new hospital more than usually interesting, and may excuse our thus dwelling on the circumstance, and referring as we have done to the special features of the building, the practical duties connected with which we have had the satisfaction of commencing.

The PRESIDENT thanked Dr. Keiller for his report, as inaugurating a system which, if carried out with regularity, could not fail to be of very great use to the profession, and especially to obstetricians.

Dr. CRAIG thought the publication of the Maternity Hospital statistics in the "Transactions," would greatly enhance the value of this record of our proceedings.

V. Dr. HART read a Paper on a *Source of Error in the Clinical Estimation of Elongation of the Cervix during Labour*.

In a communication to this Society, entitled "A Study of Two Mesial Vertical Sections of the Female Pelvis,"* it was pointed out by Dr. A. R. Simpson and myself that, during labour, the pubic triangle—*i.e.*, all in front, and inclusive of the anterior vaginal wall—is drawn up. The proof known then for this was given fully in that Paper, and need not be recapitulated here. Since then the fact of this elevation has been corroborated in an atlas by Professor Chiara, of Milan, giving vertical sections of a woman who died in labour while the foetus was undergoing spontaneous evolution.† The plates show distinctly the elevation of the bladder above the symphysis pubis, the shortening of the soft parts below the pubis, and the greater thickness of the anterior uterine wall as compared with the posterior, just as in Braune's Plate C.‡ The evidence on these points is all the more valuable from the fact that Chiara takes no notice of them in his text.

* OBSTETRICAL JOURNAL, October, 1879.

† "La Evoluzione Spontanea sorpresa in atto mediante la congelazione." Per il Professore Dominico Chiara, M.D. Milan, 1878.

‡ "Die Lage des Foetus und Uterus," &c.

In the *Centralblatt für Gynäkologie* for 7th June, Litzmann, of Kiel,* relates a case where the Cæsarian section was had recourse to on account of threatened rupture of the uterus. In this communication Litzmann makes two valuable observations, without, however, explaining them. He notes that after the abdominal cavity and uterus were incised and the child removed, the summit of the bladder was seen four finger-breadths above the pubis. Although there was urine in the bladder (eine ziemliche Menge), its position was not due to over-distension, as it had been evacuated before the operation. But further, it was observed that the peritoneum was somewhat separated from the abdominal wall. Lastly, it was noted, on post-mortem, that the peritoneum was separated from the anterior wall of the bladder, which was elongated in form. This case clinically confirms what I had previously pointed out as to apparent over-distension of the bladder during labour.†

In this elongation of the cervix, then, we get the pubic triangle drawn up. The bladder is thus elevated, but owing to the firmer connection between peritoneum and uterus than between bladder, abdominal wall, and peritoneum, the peritoneum strips off. After the pubic triangle has been so far elevated the cervix will yield more than it, and thus the peritoneum is completely drawn off the bladder. But it may be urged that the *distension* of the bladder may alone account for the *elevation* of it I have described. It does not, however, as I shall now show.

The bladder may be elevated above the pubis by distending it with water, or by distending the rectum forcibly. In these cases the bladder is pushed up, while during labour it is drawn up. The different causation makes a marked anatomical distinction. When the elevation of the bladder is due to a pushing up, the peritoneum is unaltered in its relations to it, as is seen in the Plates published by Pirogoff, Legendre, Braune, and myself.‡ If, however, we look at Braune's Tab. C, § where the section is that of a woman in labour, then it can well be seen that the bladder

* Kaiserschnitt mit temporärer Ligatur der Cervix durch den Esmarch'schen Schlauch wegen drohender Ruptur des Uterus bei hochgradiger Beckenenge und abnormer Resistenz des Muttermundes.

† OBSTETRICAL JOURNAL, October, 1879, foot-note, p. 454.

‡ Pirogoff, viii. A. 32, fig. 20; Legendre, "Anat. Homolographique," Paris, 1868, p. xvii.; Braune's "Atlas," Tab. II., B.; D. B. Hart, *Edin. Med. Journal*, April, 1879, fig. 5. See also *Edin. Med. Journal* for Oct. 1878, for Dr. Garson's Paper.

§ "Die Lage des Fœtus," &c.

is only tipped at its summit by the peritoneum. Litzmann thinks that the separation happens during pregnancy. At the end of pregnancy, however, the peritoneum still covers the bladder and the lower part of the abdominal wall.

The physiological elevation of the bladder during labour differs, therefore, essentially from that caused by pathological distension or elevation by pressure from below, both in its causation and anatomical relations.

The practical point I now want to bring out to-night can be easily seen.

The cervix dilates, elongates, thins, and is elevated during labour. By palpation in the supra-pubic region the band of separation between it and the uterus proper can be felt. This is the accoucheur's guide to over-distension of the cervix, and consequent rupture of the uterus. The height of this furrow above the symphysis has been generally taken as the guide to interference. This furrow, however, really indicates the thinning and elongation of the cervix *plus* the elevation of the pubic triangle, and thus in supra-pubic palpation a deduction must be made, which would be unnecessary if the accoucheur could estimate the upper boundary of the thinning surface at the sacral promontory.

The PRESIDENT thanked Dr. Hart for his very interesting communication.

Professor SIMPSON thought the observations were most instructive, as showing the practical value of a scientifically observed and recorded anatomical fact, of which we might possibly come to make frequent use, if we follow Thomas's suggestion, and perform Cæsarian section without cutting into the peritoneum.

OBSTETRICAL SOCIETY OF DUBLIN.

Meeting, Saturday, June 7, 1879.

E. B. SINCLAIR, M.D., *President, in the Chair.*

Abnormal Funis.

Dr. RUTHERFORD KIRKPATRICK exhibited a portion of a funis, the abnormal arrangement of which was presumed to be the cause of the death of the child during labour. The funis

formed a loop, the sides of which were adherent to one another; and, in consequence of the pressure on the curve of the loop during labour, a clot formed, and the circulation stopped in the funis. Labour began with the discharge of the waters. As soon as the pains commenced strong uterine action set in. When he saw the patient he expected that the labour would be soon completed. On examination he found that it was a breech was presenting. The waters had come away about four hours before; the presenting part of the breech was very high, and the os was not quite one-half dilated. Very strong uterine action went on for some hours, without much progress in the labour, then ceased for six or eight hours, after which the os dilated rapidly, and the breech came down. There was no delay in the delivery of the child. When it was born there was no sign of life—no pulsation of the heart, no attempt at respiration. He tried the usual means of resuscitation, but without any effect. On separating the child, and drawing down the funis (the portion of which he exhibited) from the vagina, the cause of death then became visible. The loop of the funis had been pressed against the uterine walls, and a thrombus caused, which stopped circulation—a state of affairs which could not have been diagnosed during labour. From the account of the mother, he presumed the child was living up to the time when the uterine action ceased, four or five hours previous to delivery.

Hydatidiform Degeneration of a portion of Retained Placenta.

Dr. T. MORE MADDEN said: I beg to exhibit a specimen of hydatidiform disease recently removed from the uterus of a patient under my care in the Mater Misericordiæ Hospital. The circumstances of the case were as follows:—

E. G., aged thirty; married; eight children; admitted May 9, 1879, suffering from persistent uterine hæmorrhage, which had continued since November last, when she miscarried at the seventh month. She stated that there had been no difficulty in her delivery, and that the labour was natural in every respect. On admission she was in a state of great exhaustion, and completely blanched from loss of blood. Her pulse was 120, and so feeble as to be almost imperceptible at the wrist; and she complained of tinnitus aurium. The hæmorrhage was now a slight but incessant draining, with occasional gushes of blood on every exertion.

Stimulants having been given, the uterus was examined, and found to be considerably enlarged, the sound passing in for nine inches. The os was contracted, but sufficiently dilatable to allow the introduction of seven sea-tangle tents; after which the vagina was securely plugged with sponge. On removing the tents next morning, the cavity of the uterus, which admitted the hand, was found occupied by a large hydatidinous mass attached to the fundus uteri. The removal of this substance and of a small portion of firmly-adherent placenta from which it grew, required the repeated introduction of my hand, and was attended by considerable hæmorrhage, which was stopped by freely swabbing out the uterine cavity with fuming nitric acid. The hydatidinous product removed filled a small hand-basin, and is now shown to the Society. The hæmorrhage was immediately arrested, and the patient made a rapid recovery, and was discharged on the 30th May quite convalescent.

I have brought this case before the Society because it is the first instance I have met with in which so large a hydatidiform growth as this was evidently developed from a very small portion of adherent placenta retained *in utero*, and continuing its abnormal vitality for five months after childbirth, and under circumstances which prevented subsequent impregnation. A fragment of the retained placenta on examination proved to be in a state of fatty degeneration.

I venture to think that the history of all cases of placental disease should be recorded, since in the paucity of communications on the subject in the Proceedings of our Society we find sufficient evidence that the diseases of the placenta have hardly yet attracted as much attention as their frequency and their practical importance demands. The obscurity of the origin and the difficulty of diagnosis in placental diseases have to some extent been cleared away since the publication, some forty years ago, of the late Sir James Simpson's Memoirs "On Congestion and Inflammation of the Placenta," by the Papers of Dr. Barnes "On Fatty Degeneration of the Placenta," in the 34th and 36th volumes of the "Medico-Chirurgical Transactions," and those of Dr. Graily Hewitt and Dr. Braxton Hicks, and a few others, in the "Transactions of the London Obstetrical Society." Still, to the present day, no subject of equal interest in a practical as well as in a physiological point of view remains in greater obscurity than the diseases of the placenta. It would be superfluous to

dwell on the importance of this still-neglected field of investigation, or to do more than observe that being, as it is, the sole medium of vital communication between the fœtus *in utero* and the mother, any deviation from the normal condition of the placenta by which its development may be arrested and its physiological action impaired or perverted must be of serious consequence either to mother or child, or to both. Amongst the diseases of this organ affecting the mother as well as the child are inflammations of the placenta, especially chronic or subacute placentitis, leading to morbid adhesions between the after-birth and uterus, and occasionally giving rise to the two most serious complications of parturition—viz., post-partum hæmorrhage and inversion of the uterus. Another placental disease of no less importance to the mother than to the child is congestion, sometimes resulting in hæmorrhage or placental apoplexy; whilst amongst the placental diseases which chiefly affect the fœtus by impairing or destroying the structural integrity of this organ are oedema, atrophy, and hypertrophy of the after-birth, and the various forms of degeneration—fatty and calcareous; and, above all, that which was met with in this case—viz., hydatidinous or hydatidiform degeneration of the placenta. In my own practice I have now met with five cases of this disease, the infrequency of which appears from the following Table:—

Authority.	Cases admitted into the Rotunda Hospital.	Cases of Hydatidinous Disease reported.
Dr. Collins	16,654	—
Drs. Hardy and M'Clintock.	6,634	1
Drs. Sinclair and Johnston .	13,748	4

Thus, it appears that in 31,036 cases admitted into the Lying-in Hospital there were only five instances of hydatidiform mole recorded, being in the proportion of 1 in 6207 cases.

Hydatidinous disease of the placenta consists in degeneration and abnormal development of the placental chorionic villi, usually following, although occasionally producing, the death of the fœtus. In the “Dublin Obstetrical Transactions,” 1874, I have related some cases of this kind. In most of these the hydatidiform mass was expelled from the uterus in the fifth month of pregnancy. The symptoms of this disease can at first hardly be distinguished from those of ordinary pregnancy. If, however, in addition to the signs that usually denote the death of the fœtus, the patient experiences occasional gushes of water, together with slight

hæmorrhage from the uterus, lasting for a short time and recurring at irregular intervals, we may suspect the existence of hydatidiform disease in the placenta of a blighted foetus. The expulsion of these growths from the uterus is generally attended with severe hæmorrhage. With regard to the origin of the hydatidiform products, it would be useless again to review the countless theories that have been put forward at different times. For my own part I still adhere to the views I published eleven years ago, that in the great majority of cases these growths originate in the cystic degeneration of the chorion villi of a blighted ovum, but that cases also occur in which they are found in the uterus independently of pregnancy. In such cases they originate in the ovary of an unimpregnated female from abnormal nutrition and perverted or monstrous development of a Graafian vesicle, which on being expelled into the uterus there becomes adherent, and continues to increase until by its bulk it exerts expulsive action.

In the way of treatment I know of nothing that can be done to arrest the progress of the disease, but an attempt should always be made to prevent its recurrence by improving the general health of the patient by alteratives and ferruginous tonics, especially any of the saline chalybeate waters, such as Ems or Kissengen.

It has been recommended that we should bring on the expulsion of these so-called uterine hydatids as soon as they are discovered. This, however, is clearly wrong, for it is quite possible that only a portion of the placenta may be affected; or, as I have seen, the birth of a healthy living child may be immediately followed by the hydatidinous placenta of a blighted twin conception. Hence, even if this disease could be diagnosed at any time during the nine months of pregnancy, we should still let Nature take her course, rather than by unnecessary interference run the risk of destroying a foetus which experience has shown may possibly co-exist with the hydatidiform growth *in utero*.

Intra-Uterine Tumours.

Dr. KIDD laid on the table a number of fibrous tumours which had been removed from the uterus, and said that in again bringing this subject before the Society he meant to confine his observations to cases illustrating special points in the history and treatment of these tumours. The first case he would mention seemed to illustrate a family proclivity to the formation of fibrous tumours.

In 1869 he brought before the Society a case in which he removed twenty-nine tumours from the interior of the uterus of a young woman by means of four distinct operations, performed within five or six months. In January, 1878, a sister of that girl was admitted into the Coombe Hospital, suffering from uterine hæmorrhage, with a considerably enlarged uterus. He explored the uterus, and found six tumours growing within it. He removed them by twisting off one and removing the others with an *écraseur*. They varied in size from that of a hazel-nut to a small orange. The elder sister of the girl was recently in the Coombe Hospital. It was now ten years since the operations were performed on her. Since that time she had attended to her business, and had been in America, where she was a shopwoman, and in Dublin had been a visiting governess. Her uterus was much larger than it was at the time of his previous acquaintance with her, but she had no hæmorrhage. She menstruated naturally, but not profusely. Once, after having been subjected to the use of the sound in another hospital, she had profuse bleeding and an attack of sub-acute peritonitis, but that had all subsided, and she was again pursuing her avocations in Dublin as a visiting governess. That was the first case in which nitric acid was ever applied to the interior of the uterus. Whether or not they could attribute the cessation of the hæmorrhage to the use of the nitric acid he could not say.

The next case was one of interstitial uterine tumour, complicated with a semilunar contraction of the vagina. The woman was a nurse-tender. She came into the Coombe Hospital from Belfast. She stated that she was forty years of age, but looked considerably older, and was pale and anæmic. On examination, her lips and gums were found to be almost bloodless. When she was standing or walking, she said her feet and legs swelled. Her abdomen contained a hard tumour, deep in the hypogastrium, extending half-way up to the umbilicus—tender on pressure on the right side, and movable. High up on the posterior wall of the vagina he found a semilunar contraction analagous to the annular contraction described by Dr. M'Clintock, who looked on it as an atrophic condition. The narrowing was in this case so great that the tip of the finger could scarcely pass through to touch the os. The body of the uterus was enlarged and anteflexed. The sound passed in four inches. When the sound was in the uterus it was found that the uterus could be straightened, so that the bulge of anterior wall disappeared.

It would be recollected that on a previous occasion he stated that he had found that when one wall of the uterus was bulged-out by the presence of a fibrous tumour, if they could pass the sound along the bulged-out wall they might safely infer that the tumour was intra-uterine growing from the opposite side of the uterus ; but that if they failed to pass the sound along the bulged-out or convex side of the wall, and could pass it along the straight wall, it was probably an interstitial tumour. His subsequent experience confirmed that view. He, therefore, looked on the tumour in the present case as interstitial. The woman suffered much from diarrhoea ; she had œdema of the extremities, and her health was altogether very bad. It would have been difficult to get at the os uteri, because of the semilunar contraction of the vagina, yet she was bleeding to death, and he thought it but right to give her the option of undergoing an operation, and to explain to her the risks of it. She declined any operation, and was treated with hypodermic injections of ergot, and for a time the hæmorrhage was checked, but only for one or two occasions. She left the hospital, and, he believed, was still alive, but was subject to considerable hæmorrhage. Lying on the next bed to that woman was another who had a large fibrous tumour reaching nearly to the umbilicus. The os uteri was dragged up high out of the pelvis, thrown forwards, and rested on the crest of the pubes. The tumour came down posteriorly and filled the concavity of the sacrum, pushing the os forward on the body of the pubis. It was only by moving the finger round the pubis that he could reach the os. The hæmorrhage was not excessive, but yet interfered very much with her earning her livelihood as a general servant. He determined on slitting the os ; and with great difficulty, by passing a tenaculum into it and dragging it down, the command of it was obtained. The os was then slit by means of Simpson's hysterotome, which checked the hæmorrhage. Ergot was tried, but had no effect beyond checking the hæmorrhage. The woman was again in her situation as a household servant. The next case was one of a sub-peritoneal tumour, which caused intense pain. He never saw any human being suffer so much pain as this woman went through. The tumour was of large size, and grew on the outer surface of the anterior wall of the uterus low down. It had pressed the body of the uterus up into the abdomen. There was on the right side of the abdomen a tumour nearly as large as a fœtal head, fibrous, and growing from

the lower portion of the anterior wall of the uterus, rising up into the hypogastric region and into the right inguinal region, and pressing the bladder towards the left side, and also pressing the fundus of the uterus up into the abdomen. Near the umbilicus, which was movable, there was another body, and soft. At first he thought it was a separate tumour, but afterwards discovered that it was the fundus of the uterus, and into it the point of the sound passed. She said she had hæmorrhage, but, as far as he could learn, it never had been very great. She was exceedingly anæmic and greatly reduced. Her constant complaint was of paroxysms of pain. When they came on she would get out of bed and throw herself on the floor, and she would be bathed in sweat, and almost pulseless. Morphia had very little effect in relieving the pain. An injection of half or a whole grain hypodermically would procure relief for an hour or two, but was of no permanent use. She had persistent diarrhœa, which ran her down very much. It was evident that the only thing that could be done was to open the abdomen and cut the tumour out ; but she was too low, and in view of the possibility that she would die on the operating table he did not attempt it. She left the hospital some time afterwards in a dying state. In connection with that case he would show the two specimens before them of sub-peritoneal fibroid tumours—one large, and the other small. They were sent to him by his namesake, Dr. Kidd, who was now practising in Carlow. He found them in a woman seventy years of age, upon whom he made a post-mortem examination. They were connected with the uterus, and, when he got them, had the uterine tissue upon them, though they were now dried up. They exemplified the calcareous degeneration which fibrous tumours, especially sub-peritoneal fibrous tumours, underwent.

Two years ago a woman was admitted into the Coombe Hospital from Limerick. She had a large uterine tumour, and was greatly run down by hæmorrhage. On examination the conclusion was come to that it was interstitial, and he proceeded to remove it. He dilated the os with sea-tangle, got his finger on the tumour, and found that it was interstitial, and embedded in the wall of the uterus. In removing the sea-tangle from the uterus he pricked his thumb, and suffered very much for nearly a year afterwards. His arm swelled up, and for some days after the wound he had high fever. Since that accident he had made it a rule always before removing sea-tangle to have the uterus syringed out

with Condyl's fluid, and again after removing them, before proceeding to operate. He afterwards succeeded in detaching the tumour with Sims' enucleator, but it was so large that he could not get it out of the uterus, though it was quite free and he could twist it round. Ergot of rye was freely administered, with the hope it would be expelled by the uterine contractions. The woman died in three days afterwards, and there never was any attempt at the expulsion of the tumour. She was a married woman, who had never had children. The next case was an unmarried woman—a governess—who had never had children. She came to the hospital on the 5th of March, 1878. She had profuse hæmorrhage, by which she was very much run down, and when it ceased a copious discharge of serous fluid went on. On examination he found the uterus low down in the pelvis, and enlarged. It filled the concavity of the sacrum, and extended up to the hypogastrium. The uterus was not only large, but was very much retroverted. He introduced six sea-tangles, and succeeded in getting in fourteen the next day. He got his finger into the uterus, and, with the benefit of the assistance of the President, found a large tumour projecting into the cavity of the uterus, with a very broad base of attachment growing from the anterior wall of the uterus near the fundus, and projecting along the posterior wall, which it bulged out. The attachment was so broad that it was impossible to surround the tumour with a loop of the écraseur, and he had to proceed to detach it with his finger. He ruptured the covering of the tumour with his finger, and then detached it with Sims' enucleator; with great difficulty he got it through the os and out of the uterus. It weighed $5\frac{1}{4}$ ounces, and was nearly five inches in length in its longest diameter. The patient made a perfect recovery, and was able to resume her professional work.

The tumour which he removed in the next case was contained in the bottle before them. He removed it within a few weeks from the uterus of a young unmarried lady. She had been suffering very much for some years from hæmorrhage and pressure of the tumour upon the bladder, which caused her great distress. She went to London about a year ago, and consulted one of the most eminent gynecologists there. He dilated the uterus, made an incision in what he believed to be the capsule of the tumour, and gave ergot, but did not think it practicable to remove the tumour. He stated in a letter to him (Dr. Kidd) that he believed the only thing for the patient was the performance of Battey's opera-

tion—namely, the removal of the healthy ovaries, in the hope that that would put a stop to menstruation, and check hæmorrhage, or the removal of the entire uterus. On examination he found that he could pass the sound along the bulged-out wall of the uterus, and came to the conclusion that it would be practicable to remove the tumour. Accordingly, he introduced sea-tangle, and on examination with his finger found that the tumour grew from the posterior wall of the uterus high up near the fundus, and that it was covered over with muscular fibre. With the assistance of Dr. Roe and Dr. Mason he detached part of the tumour with his finger and the rest with the enucleator, but, as in the previous case, he had great difficulty in getting it out through the os. The operation was performed on the 28th of May, and the patient had since made a good progress towards recovery, her pulse never having exceeded 84, and her temperature not having gone up.

On the 25th of January a patient from the county of Meath was admitted into the Coombe Hospital. She had previously come once or twice to his house, and on the last occasion was so blanched from hæmorrhage, weak, and exhausted, that he induced her to go to the hospital. On examining her he found a mass of tumours occupying the hypogastric and right iliac regions. One of them, on the right side, was the size of a hen's egg; another, in the centre, was rather smaller, and a third lay still deeper. All were movable in the abdomen, and in relation to each other, and were evidently sub-peritoneal. On passing his finger into the vagina he found a large hard tumour occupying the anterior half of the pelvis. It was movable, and had pushed the uterus forwards and upwards to the right side. It projected into the cavity of the pelvis and lay much lower down than the uterus itself. In fact it had pushed the uterus up into the abdomen. On passing the sound into the uterus he found that the small central tumour in the hypogastric region was really the fundus of the uterus pushed up. The cavity of the uterus was $4\frac{1}{2}$ inches in length. The diagnosis was that the case was one of sub-peritoneal tumours and a large intra-uterine tumour. The hæmorrhage was attributed to the latter, and was very great. They kept her for some time in hospital, and treated her with hypodermic injections of ergot. After a little the intra-uterine tumour began to come down. The os dilated so that he could pass his finger into it. He dilated the uterus by passing three pieces of prepared sponge into it, and applying an *écraseur*, divided the pedicle of the tumour without any great difficulty. They had considerable trouble in

getting the tumour out. The patient made a rapid recovery and went home, and she had paid him a visit since. She menstruated naturally, and while the cavity of the uterus was still large all hæmorrhage had ceased.

He had one more case—namely, of a lady from the north of Ireland, who came to him with a letter from a medical man, saying that she had long suffered from hæmorrhage. On examination he found a very much enlarged uterus, running nearly as high as the umbilicus. She was very anæmic, and had a peculiar soft watery look. On examination with the sound he found the uterus bulged out anteriorly, and a tumour growing from its posterior wall. The tumour was very convex, and he could move the sound freely round it. He tried with the sound to measure its size, and to ascertain the exact position of its attachment, and in doing so he believed he lacerated the capsule of the tumour, for she had considerable hæmorrhage; and, after a few days, a portion of the tumour sloughed and was expelled. After a short time another portion of it was expelled, and finally he was able to grasp a third portion with a forceps and twist it out. The rest subsequently came away without further operation. It was remarkable that after the first slough came away the os closed, and action apparently ceased. After the second portion sloughed the os again closed. The lady had had a tedious convalescence, but she was progressing towards recovery. A considerable amount of inflammatory action and swelling round the uterus went on after the tumour came away. The uterus was now of normal size, and the menstruation very trifling.

After some pertinent observations from Drs. Atthill, Doyle, H. Kennedy, T. More Madden, and the President, Dr. Kidd replied, and the meeting adjourned.

Obstetric Summary.

A Case of Spontaneous Version is recorded by M. Tédénat, in the *Lyon Médical* for December 7th, 1879. The patient was a primipara. Pains began in the evening; next morning at 2 A.M. membranes ruptured; at 8 P.M., she was admitted into the maternity, examined, and the shoulder found to be presenting, the back anterior and the head in the right iliac fossa: the os being

as big as a florin. She was examined also by the chief surgeon of the maternity, and preparations made for turning. While things were being got ready, a sustained powerful uterine contraction affected the left half of the uterus, the right remaining flaccid; the head therefore could be easily made out through the abdominal parietes, and felt to be slightly raised. Then followed another similar contraction, but passing more to the right; with this the upward movement of the head was more pronounced, and the vaginal finger, instead of touching the shoulder, came upon the axilla. After six or seven more contractions, the transverse presentation was changed into one of the breech, in the left oblique diameter, dorso-anterior. An hour after, the labour spontaneously terminated in the birth of a living child. It was noticed that most of the uterine contractions began at the left and passed to the right side of the uterus. The placenta was retained, and on examination found to be encysted in the right horn of the uterus, which was incompletely bicorned, a median spur forming a projection from the fundus of five centimetres in height, and prolonged as a distinct raphé along the posterior wall. Commenting on the case, M. Tédénat points out that spontaneous changes of the presentation during the last few weeks of gestation are not infrequent. Schröder found such changes in six out of 214 cases, and the author in five out of sixty. The size of the child, the length of the cord, the dimensions of the pelvis, and the quantity of liquor amnii, he thinks probably the factors which determine the occurrence of such mutations. He finds that most authors attribute to partial contraction of the uterus a large rôle in the production of these alterations. In his own case, the right and left parts of the uterus acted as would have done the hands of an accoucheur performing external version. He agrees with Pollaillon in thinking that a bicorned condition of uterus predisposes to transverse presentations, the septum preventing the long axis of the fœtus from corresponding to that of the uterus.

Quinine as an Ecbolic.—In the *Practitioner* for December, 1879, Dr. Percy Benson narrates two cases in which the administration of quinine for malarial fever was followed by premature delivery, for which he could discover no other cause than the quinine; but he has nevertheless given it in several other cases without any baneful result. Seeing also that malarial fever will itself induce labour if not checked early, he will in such cases be induced to try arsenic before giving quinine.

The Kidney Diseases of Pregnancy is the subject of an able paper by Dr. R. Möricke, in the *Zeitschrift für Geburtshilfe und Gynäkologie*, Bd. v. Hft. 1. The author considers that venous stasis is the beginning, the chief etiological fact, of most cases of nephritis during pregnancy; but he does not deny that other causes of this disease may act during pregnancy as well as at any other time. He has made careful and repeated examinations of the urine of pregnant women, before and after labour, taking especial note of the presence and amount (as the most trustworthy signs of kidney disease) of albumen and of casts. He finds that as a rule the urine passed before delivery, even though it contain albumen, yet shows few, if any, casts. The first urine passed after delivery contains, on the contrary, casts extraordinary in size and number. The author thinks that a sudden change in the circulation is the only agency which could produce so rapid and great an effect. The albumen and casts disappear surprisingly soon, being sometimes completely gone on the second day. Out of twenty pregnant women whose urine the author examined, albumen was present in one; and out of one hundred women in labour, thirty-seven had albuminous urine, and in thirteen there were casts. In support of his view, that the kidney affection is due to venous congestion, the author adduces the facts that albuminuria is disproportionately frequent in first pregnancies and in twin pregnancies, and that it is usually only met with in the later months; that it rapidly disappears when the uterus is emptied; that in pregnancy there is obstruction to the return of venous blood, shown by the occurrence of varicose veins and œdema of the legs; that it is shown by experiments on animals, that such venous congestion is adequate to produce albuminuria, and also by its occurrence in diseases such as valvular incompetence, emphysema, &c., in which there is obstruction to the venous circulation; and he considers that the peculiar condition of the blood in pregnancy is such as to favour the passing of the changes due to venous congestion into those of inflammation. To the objection raised, that large tumours are found in the abdomen without albuminuria, the author replies, that albuminuria is often met with in such cases. To the objection that it is impossible for the pregnant uterus to press on the renal veins, he answers, that it is not necessary for it to press on them directly; its bulk raises the intra-abdominal pressure, and thus hinders the return of blood. The argument, that albuminuria is sometimes met with in the

early months of pregnancy, the author meets by stating that he does not assert venous congestion to be the only cause. The theory that the liability to nephritis is due to increased renal function, he rejects on the grounds that there is no evidence of such liability where one kidney is absent, or has been rendered useless, and extra work is thrown on the other ; nor is there in diabetes. The view of Spiegelberg, that nephritis in pregnancy is due to a reflex action on the vaso-motor nerves of the kidney, Dr. Möricke looks upon as a pure hypothesis.

Professor Kehrer, of Giessen, has published a monograph on the *Origin and Prophylaxis of Sore Nipples* (*Beitrag zur klin. und experimentellen Gebursh. und Gynäkologie*, Bd. ii. Hft. 1). To understand the production of sore nipples a knowledge of the mechanism of sucking is necessary. First, the nipple is seized, and drawn into the mouth, without, if the tongue is of normal length, the lower jaw touching the nipple. Second, the nipple again becomes shorter, and is drawn back out of the mouth. The well-known lesions of the nipple (chaps, &c.) result from the squeezing of the nipple between the jaws, its rubbing against the hard gums, and its being wetted with milk, and with the secretions of the mouth. The author considers, and etiologically differentiates, vesicular excoriations, semicircular lateral ulcers, erosions at the summit of the nipple, fissures, &c. The conditions upon which the origin of such depends, are the power, frequency, and duration of sucking, and the physical peculiarities of the nipple. According to most authors, primiparæ are more liable to these affections : and Kehrer does not agree with Winckel, according to whom fissures are found as often in pluriparæ as in primiparæ. He has sifted his data, taken from lying-in women both in town and country, and gives for each the number of children born, the number of children suckled, the frequency of fissures, and of inflammation of the breast. He finds that these breast affections are so frequent that half of all women in some confinement suffer from them. Breast affections, especially chaps, are 20 per cent. more frequent in town than in country patients. They are, of course, more frequent in first lactations ; fissures being in these twice as frequent, and mastitis three times as frequent than in others. The greater liability of town patients to sore nipples results from their smaller quantity of milk, badly-developed nipples thinner skin, greater vulnerability, &c. For prophylaxis the author recommends the improvement of the

nutrition of suckling women, to produce more abundant milk, and the drawing out of the nipple during pregnancy, for which purpose the author supplies his midwives with a suitable glass. The early application of an india-rubber shield to the nipple is of especial importance. During 1877, out of 122 suckling women 22·95 per cent. suffered from sore nipples ; while in 1878, out of 103 who suckled from the beginning with nipple shields, only 6·6 suffered in the same way. The shields, however, should not in practice be used for every case from the beginning, but only where there are small flat nipples, irritable skins, &c. The author further recommends the application of compresses soaked in glycerine. He thinks that hardening of the nipple during pregnancy by astringent applications is of doubtful utility as a prophylactic.—*Centralblatt für Gynäkologie*, No. 24, 1879.

Gynæcic Summary.

Emmet's Operation for Lacerated Cervix Uteri.—In the *American Practitioner* for December, 1879, we find an interesting Paper on the above subject, by Dr. J. W. Collins, of Jackson, Tennessee, U.S.A. The author believes that “in this operation we have the means of overcoming certain pathological conditions not to be overrated by the gynæcist, the treatment of which has heretofore been unsatisfactory.” There are “cases of cervicitis . . . which apparently yield to rest, astringents, caustics, and antiphlogistics for a time, only to return when the patient resumes her accustomed mode of life.” In support of his opinion he narrates three cases. Case 1, had been ill for fourteen years ; had a lacerated perineum, a swollen, granular, tender cervix, with cicatricial tissue occupying the line of a former laceration ; and suffered from hysteria and “general neuralgia.” The cicatricial tissue was cut out, and the cervix repaired. Two months later the perineum was restored. After the latter operation the patient considered herself well, and continued well when last seen, six months after the operation. Case 2, had been ill four years. Her perineum had been torn up to the anus. The uterus was retroflexed, its cervix presented a granular erosion and a line of cicatricial tissue where laceration had taken place. The patient was low-spirited, suffered from neuralgia, and could not stand, or perform

her household duties, without suffering. The cicatricial tissue was partly, but not completely, cut out, and the cervix was repaired. Seven weeks later the perineum was restored. After these operations the womb was found reduced in size and in proper position, not needing a pessary. The patient completely regained her health (though we are not told how long she remained under observation). Case 3 is rather prematurely recorded, as all the author can yet say is, that she "is doing well, and *will* return home in a few weeks entirely restored to health."

Removal of Uterine Fibroids by Gastrotomy.—This subject was recently brought before the Paris Academy of Medicine by M. Tillaux. He thinks that this operation ought to take its place in practical surgery, and that there are three indications which may justify it: 1. Intractable metrorrhagia threatening life; 2. Intolerable pain making life a burden; 3. Intestinal obstruction. He narrated a case. The patient was aged thirty-five, and suffered from severe hæmorrhages, for which she had gone from hospital to hospital without benefit; and she begged M. Tillaux to operate. She was to the last degree enfeebled and cachectic. The operation was performed with Listerian precautions. The incision made was six inches long; some pelvic adhesions, easily torn through, existed. The tubes were tied with catgut, and divided, leaving the ovaries. The pedicle was fixed to the lower angle of the wound. It fell on the twentieth day. The patient recovered without a bad symptom, and menstruated regularly afterwards. The tumour was sub-mucous, and weighed two kilogrammes. M. Duplay then brought before the Academy statistics of all the operations of this kind which he had been able to find, up to last year. They comprised 17 cases in which fibroids had been removed, leaving the uterus, with 12 deaths, or 70·5 per cent.; 55 in which also a part of the whole of the uterus had been removed, with 32 deaths, or 58 per cent.; and 41 in which fibro-cystic tumours had been removed, with 19 deaths, or 46·4 per cent.: in all a mortality of 55·7 per cent. He then narrated two cases of his own. The first was aged forty-one, suffered from pains, hæmorrhages, and resulting anæmia: the belly was as big as at the full term of pregnancy. The incision had to be extended above the umbilicus; some very vascular adhesions were met with; the tumour was so big that it had to be divided before it could be got through the incision. The left ovary formed part

of the mass removed. The right ovary and tube were ligatured in the pedicle. The patient died on the third day, from exhaustion and septicæmia. The tumour weighed 4 kilogrammes. The second was aged twenty-six, a virgin. There had been amenorrhœa for three months ; her belly had been enlarging for two years, and was so big that she could not work or walk : it measured 39 inches in circumference at the umbilicus. The operation was performed without antiseptic precautions. The incision extended from near the symphysis to half way between the umbilicus and ensiform cartilage. The left ovary and tube were removed with the tumour. The pedicle was secured to the lower angle of the wound, and fell on the sixteenth day. The patient got up on the twentieth day. The tumour weighed 22 lbs. M. Verneuil said that he thought that this operation does not stand on at all the same footing as ovariectomy : for ovarian tumours are beyond the reach of ordinary therapeutics, while there are many means of relieving or curing patients who suffer from uterine fibroids, without operating upon them. An operation the mortality of which was 65 per cent. is an exceptional measure, only to be adopted as a last resource. He added, that there at present exists "a true operative delirium," due to the progress which has been made in this direction (he would not be surprised to hear of extirpation of the liver, or the medulla oblongata !), but of which "vertigo" it is necessary to beware.

On the so-called Garrulitas Vulvæ is the title of a paper by H. Lohlein, in the *Zeitschrift für Geburtshülfe und Gynäkologie*, Bd. v. Hft. 1. By this term the author understands the noisy escape of atmospheric air from the vagina ; an occurrence which is an annoyance to the patient rather than a source of suffering. The noise may be of a splashing, blowing, clucking, or hissing character. It often alarms the patient by making her think that the intestinal gas escapes from the vagina in consequence of some injury during labour. The author thinks the term *flatus vaginalis* a better name for it than the one used in his title. He discusses : 1. Its frequency. Out of 750 gynæcological cases, this symptom was met with eight times. Of these eight, only one sought advice on that account alone ; two mentioned it without being asked ; and in the other five it was only found by direct inquiry. He refers to a paper by the late Prof. E. Martin, of Berlin, "on a temporary widening of the vaginal *cul-de-sac*," in which he thinks

that distinguished observer mistook for a pathological action of the uterine ligaments that which was simply distension of the vagina by air. 2. Its causation. Two conditions are needed; first, a gaping of the vaginal orifice, which shall permit the entrance of air into the canal whenever the intra-abdominal pressure is less than the pressure outside; and then a sudden increase of the intra-abdominal pressure to expel the air. Therefore it is that the noise occurs during changes of posture. The condition of the vaginal orifice which permits the entrance of air is usually brought about by injuries during labour, lacerations of the vagina, vaginal orifice, or perineum. 3. Its treatment. It is seldom that this symptom alone has to be treated. The prophylaxis consists in carefully uniting by suture all wounds of the vagina or perineum. If the annoyance is such that the patient requires treatment for this symptom, it should consist of astringent sitz baths, or of a plastic operation to narrow the vaginal orifice posteriorly.

Professor Kehrer, of Giessen, has published a monograph on *Sterility* (*Beiträge zur Klinischen, und Experimentellen Geburtshilfe und Gynäkologie*, Bd. ii. Hft. 1, Giener, 1879). Prof. Kehrer considers that most authors study sterility too much from an anatomical standpoint, without consideration of its clinical aspect. Little is as yet known upon the distribution of the causes of sterility between the two sexes, and the relative frequency of individual causes. He gives detailed observations of forty instances of sterility, in which he was able almost completely to investigate the condition and functional activity of the sexual organs both of the male and female. The semen was in each case examined as recently as possible. Among these forty cases he found "azoospermie" fourteen times, and impotence twice. Deducting some doubtful cases, he reckons that out of thirty-seven cases of sterile marriage "azoospermie" was the cause in 29·7 per cent., and impotence in 5·4 per cent. These causes seem to be especially frequent in town residents. It therefore follows that, before beginning to attempt the cure of sterility, the husband and his semen should be examined, for in many of these cases disease of the urinary or sexual organs will have been the antecedent. It also follows that gonorrhœa should not be so lightly regarded by the physician. On the whole, in 31·5 per cent. of sterile marriage the fault was on the male side. In cases of sterility on the part of the female he finds as causes the well-known ones, stenosis of the

cervix, mal-development, retroflexion, uterine catarrh, amenorrhœa. He will not admit anteflexion to be a cause of sterility. To put to the proof the statements of Sims as to the connection between dysmenorrhœa and sterility, the author inquired as to the condition of menstruation before and after marriage, in women who remained sterile, and in women who had children, respectively. He found that a history of painful menstruation before marriage was only slightly more frequent in sterile than in fertile women. And he was not always able to look upon the changes which condition dysmenorrhœa as being hindrances to conception. He gives detailed tables upon the question whether these anomalies of the genital organs delay the occurrence of pregnancy. These bring out the remarkable fact, that of those who menstruated painlessly and those who menstruated painfully, 82.5 per cent. were delivered from 240 to 500 days after marriage. The few whose first delivery was delayed beyond this period were found some in one group, some in the other. By far the most frequent cause of sterility in the female the author thinks is to be found in imperfect development of the internal organs. Stenosis of the cervix comes first in the second rank. He thinks that the relative frequency of the other causes is to be determined by a different mode of research from that hitherto pursued. He concludes with an account of researches into "azoospermie," carried out by experiments upon animals. He tied in dogs, in some the vas deferens, in some the seminal ducts, in others the whole spermatic cord, or excited inflammation by injecting acetic acid into the vas deferens. The result of these proceedings he found to be, retention of semen, with excentric hypertrophy of the cord of the epididymis, with gradual disappearance of the secretory power of the testis, and, in some, primary atrophy of the testis. The wasting of the testis he found much greater after ligature of the spermatic cord, or the production of inflammation in it, than after atrophy of the seminal ducts; a fact which he thinks may be of service in diagnosis.—*Centralblatt für Gynäkologie*, Nr. 23, 1879.

Mechanical Dilatation of the Uterus, by Heinrich Fritsch of Halle, a/S. (*Centralblatt für Gynäkologie*, Nr. 25, 1879). It has been discussed lately whether compressed sponge, laminaria, or tupelo is the best and safest means of dilating the cervix uteri. The author makes the assertion that if the end sought is simply the widening of the cervical canal, all three methods are to be avoided.

If we had to consider a surgical question, how to widen a narrow canal in resisting soft parts, we should, both on theoretical and practical grounds, prefer a quick method to a slow one. By a rapid method septic poisoning can be avoided: by a gradual one it is much to be dreaded. If we wish to get access to the cavity of the uterus, whether for the purpose of diagnosis or for that of treatment, the gradual method of dilatation should be rejected. Retained ovum or placenta, small polypi, fungous excrescences, are more easily diagnosed and removed by the rapid method. The following is the author's mode of proceeding:—He has a number of steel sounds with bulbs of graduated thicknesses, the thickest being the size of a large finger. An ordinary sound having been passed to explore the road, and the patient put under chloroform, larger and larger sounds are successively introduced. As soon as the point of the sound reaches the internal os, the instrument is firmly pressed against it, the uterus being from outside steadily held down upon the sound. The force that can be thus employed is not slight, and it is plain that powerful internal pressure should not be employed without support of the uterus from the outside. It is essential that the patient should be under an anæsthetic. The author thinks that this method has the advantage over other methods, that the dilatating force is applied uniformly, instead of at two or more points; and it is far safer than the metrotome. He has in eight cases (multiparæ) removed retained fragments of an incomplete abortion, and twice mucous polypi, and three times he has scraped out the uterine cavity. Each time the patient was under chloroform, and the uterus carefully fixed by external pressure. He has no experience of the method in cases of stenosis of the os internum. He thinks it is only desirable to dilate with tents, where the exploration of the uterine cavity is not the sole object of the dilatation.

Are Tents necessary in Gynæcological Practice? by Carl Schröder, of Berlin (*Centralblatt für Gynäkologie*, Nr. 26; 1879). The communication of Fritsch (of which we have given an abstract above) has led Schröder to contribute his experience on this important subject. It is now a year and a half since he used a tent in private practice; and in his lying-in hospital, where formerly sponge and laminaria tents were very freely resorted to, during the same period tupelo tents only have been but seldom employed. He cannot, however, give such definite reasons for their disuse as Fritsch does; nor has he seen such bad results

from sponge tents as to make him radically condemn them. He has, of course, seen evil results, and even death from them ; but believes that these consequences might have been avoided by proper care. Nevertheless, he thinks that the process of dilatation by their use with proper precautions is painfully slow. He considers them now unnecessary ; first, because in many cases in which he formerly dilated the cervix he now can carry out diagnostic and therapeutic indications without previous dilatation. He finds the means of doing so in the sharp spoon, which, for uterine use, he has had made longer, and with a flexible stem. This can be passed through the cervical canal without difficulty, and for the purpose of diagnosis small pieces of the lining membrane of the uterus can be scraped away, or the hypertrophied membrane entirely removed, without preliminary dilatation of the cervix. If, however, he judges it necessary to explore the uterine cavity with the finger, he first divides the vaginal portion on each side up to the vaginal insertion, and then either forces the uterus down upon the finger by external pressure, or draws it down by forceps. This is done, as a rule, with surprising ease ; for in the cases in question the upper part of the cervix is, usually, already somewhat expanded. But even if this part be narrow, the finger can be pressed into the uterine cavity, although in difficult cases not without some laceration of one side of the cervix. These superficial rents heal, if the parts be healthy, very easily ; and the incisions can be united by sutures after the diagnostic or therapeutic end has been attained. Following this method, the author has come in a large and varied practice to abandon almost entirely the use of tents.

The Dilatation of the Cervical Canal (after Hégar), by M. Tchoudowski, of St. Petersburg (*Archives de Tocologic*, December, 1879). The author considers that all the means at present used to dilate the cervix present the same inconveniences, more or less marked. (*a.*) Their employment often sets up inflammation (metritis, para, and perimetritis). (*b.*) They sometimes bring about septicæmia (especially prepared sponge). (*c.*) Their principal fault is that they do not sufficiently dilate the internal orifice. It is often found that the internal os will not admit the exploring finger, and then it becomes necessary to resort to incisions. This is especially the case with laminaria. With prepared sponge, one can always, by increasing the size of the tent, obtain sufficient dilatation ; but we must then expect to see complications arise.

Inflammatory complications are the most frequent. They are attributed by writers to the injury to the cervix from the dilating agent, and to the patient's neglecting to observe rest while the tent is expanding. The author admits these factors as predisposing causes, but thinks that there are other determining causes, which might excite inflammation in a healthy uterus. He thinks that it is inconceivable that a tent should so rapidly expand within the cervical canal, and yet the mucous membrane remain intact. That it does not, is shown by the sanguineo-purulent discharge with which the tent is found covered when withdrawn. These discharges decompose very quickly, so that after remaining for six or eight hours within the cervical canal they give out a putrid odour. It is the absorption of these putrid matters which, in the author's opinion, best accounts for the complications. Risk attends the use either of sponge or laminaria. He then discusses the other means which have been employed to dilate the cervix. The dilator of Priestley, or its modification by Ellinger, he thinks unsafe except where the relief of a slight stenosis is all that is needed: for the unequal pressure to which the cervix is subjected when the blades of the instrument are separated entails, if the dilatation be carried far, a violent laceration of its tissue. Busch's three-bladed dilator has the same disadvantages as the one last mentioned. The india-rubber dilator, described by Emmet in his recently published book, the author has not used. That of Barnes is only suitable where dilatation has already begun. The steel bougies of Peaslee are not employed by gynæcologists, and therefore their results are not known to the author. The introduction of a new means of dilating the cervix, free from the disadvantages of the old methods, will therefore be doubtless welcomed. Such a method is that of Hégar. His dilators are composed of cylindrical stems of different thicknesses, slightly curved and smooth on the surface. One end is obtusely conical, and the other is provided with a handle. The first is a millimetre in diameter, and each successive number exceeds in width the preceding one by a millimetre, so that No. 25 measures 25 mm. in thickness. The first ten are of hard india-rubber, which gives them a certain elasticity; the others are of wood. A duck-bill speculum is inserted, the cervix drawn down with volsella, and successive numbers of the dilator, lubricated with vaseline, introduced. There is seldom much resistance till No. 9 or 10 is reached. If after several have been

introduced there is much resistance, Hégar advises that the number last passed be left in the cervical canal for fifteen or twenty minutes before the dilatation is carried further. To attain a degree of dilatation sufficient to admit the finger—*i.e.*, up to No. 15 or 16—Hégar advises that at least an hour and a half or two hours should be given ; but if more prompt dilatation be essential it can be done in twenty-five minutes. The canal of the gravid uterus at the ninth month can, without inconvenience, be dilated up to No. 25, a size which will admit two fingers. In gynæcological practice, Hégar has not yet gone beyond No. 17, a size which will admit one finger. The amount of pain is variable. Hégar has not yet been able to find on what condition it depends, other than the individuality of the patient. There is usually slight hæmorrhage, but he has never seen it considerable or prolonged. In cases of uterine hæmorrhage during pregnancy, where the indication is to empty the uterus of its contents as quickly as possible, this dilator is much superior to all others ; it can be employed as a plug and as a dilator at the same time. It has the advantages over Barnes's bags, that it can be employed before the os uteri has in the least begun to dilate. Its use is indicated in the following cases :—1. Where it is necessary to bring on premature labour, and other means are inapplicable. 2. In cases of hæmorrhage during pregnancy, where the os uteri is closed and the membranes intact. 3. In cases of severe hæmorrhage difficult to stop, where the dilatation of the cervical canal will permit the immediate evacuation of the uterus. In urgent cases the dilatation can be accomplished in twenty or thirty minutes ; but in the case first mentioned it may take two entire days, if the dilators are changed every five or eight hours. In gynæcological practice they are indicated where exact diagnosis and treatment are impossible without previous dilatation, and also in cases of stenosis of the internal or external orifice. The author does not doubt that, owing to their simplicity, cheapness, and to the large number of cases to which these dilators are applicable, their use will spread widely, although he does not think they will ever replace sponge in the cases where tents of that material easily answer the purpose, especially when the sponge is impregnated with an antiseptic which does not irritate the tissues so much as strong carbolic acid. The sponge, commercially known as "English carbolized sponge," he thinks, contains too little carbolic acid to be antiseptic ; although it does not irritate

the tissues more than ordinary sponge, it is scarcely superior to it.

Œdema of the Labia Majora et Minora, Symptomatic of Syphilis, by Dr. Oberlin (Thèse de Paris, 1879). The author has carefully studied female syphilitic patients in the St. Lazare Hospital, and has remarked that often in the primary and secondary stages of the disease, when the lesions symptomatic of these stages have developed upon the labia, there is present a special lesion of these organs, consisting in a hypertrophy having all the characters of solid œdema. This œdema consists in a considerable increase in the size of the labia, the surface of which is pale, mammillated, and traversed by numerous furrows. To the touch they feel elastic, and are not tender. The greater labia are chiefly affected, but sometimes also the lesser. This lesion consists in a hypertrophy with hyperplasia of the skin and connective tissue. It is often accompanied by a form of rounded, very hard, apparently warty, sometimes unbilicated papules. It is a syphilitic lesion, and is not rare, being met with in at least 5 per cent. of women suffering from primary or secondary syphilitic lesions of the external genitals. It is characteristic, is described by few authors, and has almost always been confounded with lymphangitis. It often persists a long time (generally many months) after the disappearance of the affection which produced it. General anti-syphilitic treatment, vigorously and perseveringly carried out (especially by mercurial inunction), is the only cure. Local treatment has hardly any effect.—*Bulletin Général de Thérapeutique*, Dec. 15, 1879.

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THE
OBSTETRICAL JOURNAL
OF
GREAT BRITAIN AND IRELAND.

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No. LXXXIV.—FEBRUARY 15, 1880.  
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Original Communications.

ANNUAL ADDRESS,

Delivered at the Obstetrical Society of London, February 4th, 1880,

By W. S. PLAYFAIR, M.D., F.R.C.P.

President of the Society.

GENTLEMEN,—The task allotted to your President of annually addressing you on the work and prospects of the Society is now fortunately always a pleasing and an easy one, since he has, year by year, to tell the same tale of continuous and increasing prosperity. Since our last meeting we have elected fifty-nine new Fellows, while we have lost thirty-one by death and resignation, the Society now numbering in all 774 Fellows. The Reports you have heard read give satisfactory proof of our financial prosperity, and of the working of the Library, which for some years has formed an important part of our organisation, and which promises, ere very long, to be one of the most valuable centres for obstetric reference in the country. I claim the right to a special interest in its well-being, since I had the honour of holding the office of Honorary Librarian when it first received a local habitation, and had much to do with its arrangement.

We have to-night, for the first time since its formation eight years ago, received a Report from the Board for the Examination of Midwives. The Council of the Society has always felt that an improvement in the training of women acting as midwives was a question of really national importance, and most of you must have had opportunities of becoming personally acquainted with the

injury to the public arising from the crass ignorance of the women who attend on the poor during their time of trial. It always seemed to it a great and a crying scandal that in a country such as ours every ignorant old woman who chooses to assume the name of "midwife" might practice at her own free will without let or hindrance. In founding an examination the Society had no intention of assuming to itself legislative functions, but it hoped that its action might direct public attention to this question, and that the Legislature might eventually take the matter in hand. There is good ground for believing that a Bill on this subject will ere long be submitted to Parliament, and, in that case, our scheme of examination will be useful as indicating the lines on which such a measure should be based. Early in the year I had the honour of heading a deputation to the Lord President of the Council urging the necessity of this on the Government, which was courteously and favourably received. The Government had already taken this matter into consideration in their Medical Bill, in which there was provision for the formation of a register of midwives, which was, however, simply permissive, and would have been practically useless. When the question is settled, our Board of Examiners will, I am sure, gladly perform the operation of the "happy despatch," and cease their functions. In the meantime I should like to point out that something may be done by our principal Lying-in Institutions, which have been, doubtless unwittingly, great offenders. As matters at present stand in many of these, any ignorant and superannuated old woman, who thinks the practice of midwifery would be a comfortable provision for her old age, goes to a Hospital, pays a moderate sum, sees a few labours, and comes away, with a certificate a yard long stating that she is a duly qualified midwife or nurse. In the General Lying-in Hospital, where I am Consulting Physician, the Committee has, on my motion, passed a resolution that for the future the only certificate given shall be one of tuition, and that only after six months training, and that no woman shall be admitted after thirty-five years of age. For a certificate of proficiency, pending the action of the Government, the pupils are recommended to take the Diploma of our Society. If such a course were adopted by other similar institutions, I venture to think that much good might be done.

The meetings, during the past year, have been well attended,

and the many interesting Papers submitted to us, and the valuable discussions they gave rise to, show that, in this respect, the Society is in no danger of losing its well-earned reputation. I cannot presume to trespass on your kindness by any lengthy abstract of what has been done, but there are one or two subjects which have been brought before us which specially merit a brief notice on this occasion.

We have had several communications illustrative of the *questio vexata* of the proper treatment of extra-uterine foetation of the tubal variety. Supposing this to be satisfactorily diagnosed, and it is not so rare in these days as formerly that the diagnosis should be made out, no question can be more momentous than the decision as to the proper course to pursue. Dr. Priestley brought forward a case showing the advantages of an expectant treatment. The extra-uterine pregnancy was made out, nothing was done, and twelve years afterwards the foetal bones were expelled, after much constitutional disturbance, through an aperture in the roof of the vagina. I must frankly confess that this practice does not commend itself to my judgment; for, given a tubal foetation, the chances are immeasurably greater that the sac should rupture, than that it should remain quiescent for so many years, and the hope that it will do so is a slender reed, indeed, to rest upon. Moreover, the constitutional irritation attendant on efforts at spontaneous elimination would probably expose the patient to risks quite as great as those accompanying some more active form of interference as soon as the complication was detected. Dr. Routh contributed a Paper on a somewhat similar case, in which aspiration was frequently resorted to, with the view of arresting the growth of the foetus, which, however, it did not succeed in effecting, since the sac subsequently ruptured. This procedure has frequently been tried, and aspiration is so simple and harmless that there can be no objection to it *per se*, but Dr. Routh's case suffices to prove that it is not reliable, and, moreover, it has the disadvantage, even when the foetus is destroyed, of leaving it in situ with the risk of subsequent spontaneous elimination, as in Dr. Priestley's case. There remain the alternatives of removing the foetus from the sac, either by abdominal section, or by section through the vagina with the galvano-caustic knife, leaving the placenta attached, an operation which has more than once been successfully performed in America. If there were a fair chance of being able to remove the whole mass, cyst in-

cluded, the former, with strict antiseptic precautions, would probably be preferable, and would be no more dangerous than, and not so difficult as, ovariectomy. Unfortunately the cyst is generally so firmly united by adhesions to the surrounding parts that its removal cannot reasonably be expected, and the drainage of the emptied cyst through the abdominal opening would be more difficult than through the vagina, where the aperture is made through its most dependent part. For this reason I am inclined to think that Thomas's operation by galvano-caustic is the procedure which, in the present state of our knowledge, offers the best hope of a successful result. The chief risk is hæmorrhage ; but this is less when the tissues are burned through than if they were divided by the knife, as in abdominal section. It is the procedure I had determined to adopt in a case which I narrated to the Society, which both Dr. Braxton Hicks and myself believed to be probably one of extra-uterine fœtation, but which the use of the sound demonstrated to be a retroflexion of the gravid uterus. It well illustrates, I think, both the difficulty of diagnosis and the value of that instrument in settling the nature of the suspected swelling. The same doubt is mentioned in both Dr. Priestley's and Dr. Routh's cases, and clearly no steps should ever be taken until the state of the uterus is positively determined in this manner. I have ventured to comment upon these communications since the subject is of great importance and comparatively new, so that we are still much in want of positive rules for our guidance when such anxious cases come under our care.

No less than three evenings were spent, and I am sure they could not have been more profitably employed, in the discussion on the use of the forceps, which was so ably introduced by Dr. Barnes. The crowded room, and the fact that many eminent obstetricians travelled long distances, from Dublin, Edinburgh, and Aberdeen, to join in the discussion and give us the benefit of their experience, indicate in the strongest way the interest which the profession takes in this great practical question, and fully justify the action of the Council in selecting it as a topic of debate. Nothing can possibly be of greater use than this free interchange of opinion amongst so many leaders in obstetric science from different schools, and, to my mind, this, and the analogous discussion on puerperal fever which preceded it, constitute some of the most useful work which this Society has

accomplished during its existence. I shall not trespass on your patience by a detailed analysis of the debate, since you will very shortly have the opportunity of refreshing your memories with regard to it in the forthcoming volume of the "Transactions," where you will find it printed *in extenso*. To myself it was of special interest, since, having paid a good deal of attention to the subject for many years, and having spoken and written of it oftener than was perhaps judicious, I am aware that some of my friends credit me with being an uncompromising champion of frequent forceps delivery. I was interested, therefore, to find, and it marks, I think, a distinct advance in professional opinion, that the speakers took almost for granted the advisability of operating soon rather than late in the only class of cases in which I have ever recommended a more frequent use of the forceps than has been customary—viz., those in which the head was arrested low down in the pelvis, or on the perinæum, simply from a deficient "vis a tergo." The unanimity with which this was assumed as a proper course of procedure might almost have made some of our respected predecessors, who would have regarded such practice with horror, turn in their graves. With the exception of Dr. Daly, however, no speaker alluded to what has always been, to my mind, a strong justification of early interference in the hands of a competent operator, and to no other can our remarks refer, and that is the relief of the horrible sufferings of labour. It is the clear duty of the accoucheur to diminish the pains, as well as the perils, of childbirth, and I have never been able to understand how we are justified in allowing our patients to drag on many weary hours in useless suffering, when they might be speedily and safely delivered. The only reasonable objection to this teaching, and it is one the force of which I willingly concede, is that a semi-educated and stupid practitioner may fail to recognise the distinction between this most simple and safe procedure and the much more formidable cases in which the head is high in the pelvis. The answer to this is that we must lay down a rule of practice for the intelligent and well-taught, not one which renders ignorance and incapacity safe. If it were necessary for surgical or obstetrical science that no practice should be advocated which could do harm in the hands of the incapable, all hope of progress would be at an end. Rather let it teach the lesson that more time and care should be devoted to the instruction of the student in a department of practice in which so much of his future work is

to be spent—a lesson which those who regulate our examinations require to lay to heart far more than our teachers of midwifery. To the other great point in the debate, I allude to the application of the forceps with the head high in the pelvis, and the os undilated, I venture to think far too great prominence was given. From the way in which it was discussed one would almost fancy it was considered by some to be an everyday practice, and the inexperienced might thus readily be misled, to the serious detriment of their patients. While I do not deny, nay, while I readily admit, that in certain well-selected cases, in the hands of those who are expert in the use of the instrument, the operation is fully justifiable and may lead to the best results, yet I know of few procedures requiring more judgment, skill, and caution; and I believe that such a use of the forceps cannot be fenced round with too great care. Nor, indeed, are the cases in which it is even to be thought of, unless the experience of others be very different from my own, of any but the rarest occurrence. I am satisfied, however, that a superficial perusal of the debate would scarcely lead to that conclusion, and I think that the eminent surgeon who remarked to me that he was horrified to find that accoucheurs were so frequently in the habit of applying the forceps within the uterine cavity, was not altogether unreasonable in the deduction he drew from reading our discussion. Dr. Roper's observations on the results of this practice in the Rotunda Hospital struck me forcibly. Based as they were on statistics, which so readily adapt themselves to proving whatever we desire, they may possibly be susceptible of refutation; but the answer to them, if an answer is to be made, has not yet appeared.

An important event in the history of the year is the Report on Transfusion, which was presented at our December meeting by Dr. Schäfer. The Society will remember that some years ago a Committee was appointed to investigate the subject, under the presidency of Dr. John Hall Davis. After holding several meetings the Committee found that the practical difficulties in coming to any satisfactory conclusion were so great that little could be done without physiological experiments, which naturally could not be performed by them. They therefore arrived at the resolution that it was better to entrust the investigation of the subject to an experienced physiologist, and Dr. Schäfer was selected for the purpose, a grant of 70*l.* from the funds of the Society being allotted to

to him to cover the expenses of the necessary experimental inquiries. The wisdom of this course is amply proved by the deeply interesting and instructive Report which was read to the Society. I may say, without fear of contradiction, that this is by far the most valuable contribution to the study of the operation with which medical science, in this country at least, has been yet enriched. Hitherto all that has been done in reference to the subject has been merely empirical or theoretical, and the want of accurate observations has done much to prevent this valuable operation being as frequently performed as it might have been. Now, for the first time, the profession has some reliable data to act upon, and it may be well to point out how triumphantly such a Report disposes of the short-sighted and ignorant action of those who would put a stop to experiments of all kinds on living animals, without which such increased knowledge as we now possess of the best means of performing this operation could not possibly have been acquired; and, as the direct result of which, many invaluable lives may, in the future, be rescued from the very gates of death. The first important result of this investigation is that it disposes, once and for all, on indisputable grounds, of the use of milk, beef-tea, and other fluids instead of blood. Within the last year or two, Dr. Thomas, of New York, and others in America, have published cases in which transfusion has been performed with such agents, of which the most that can be said is that some of the patients survived in spite of the operation. Dr. Schäfer's researches into the action of such fluids on the blood-corpuscles will, I cannot but think, insure our not hearing more of such experiments. The operation is one in which I have myself always taken great interest, and, after a careful study of all that had been written on the subject, I had come to the conclusion that the use of defibrinated blood, with a simple syringe, best fulfilled the indications which seemed to me essential for success—viz., simplicity of apparatus and ease of performance; and this was the method I had adopted in several cases in which I had performed it after severe post-partum hæmorrhage. Dr. Aveling's method of immediate transfusion I had not tried, theoretically good as it was, because the manipulations required seemed to me too complex for general use. Curiously enough, the use of defibrinated blood, so strongly recommended by many, is the one method which Dr. Schäfer seems not to have adequately discussed in his Report. Whatever his reason for this, I think we must admit that he has

so simplified the method of immediate transfusion from vein to vein, that every one who resorts to the operation for the future will prefer to try it. The apparatus costs next to nothing, it may always be carried in a corner of the obstetric bag ready for use on any unforeseen emergency arising, a point of no little importance, and the necessary operative procedures are so simple that no one need shrink from resorting to them. The same can hardly be said of the proposed method of transfusing from artery to artery, in which I confess I see much practical difficulty. I think you will agree with me that the Society has good cause to congratulate itself on its action in directing investigation to this important topic.

Mr. Lawson Tait submitted to us a new operation of a very ingenious character for repair of the female perinæum. It did not, when read, seem to meet with the approval which, I think, a more careful perusal will show that it merits, since its details are, at first, not easy to understand. I am satisfied, however, that as regards one most troublesome class of cases—viz., those in which the recto-vaginal septum is lacerated, which I, in common with all who have had to deal with such cases, have found very difficult to manage—it promises very well. I mention it because I think many who heard the Paper probably did not quite understand the method proposed, which, however, is easily enough mastered when carefully studied.

If I do not allude to other interesting communications which have been brought before us, it is only because they speak for themselves and require no comment from me. I regret, however, as others who have occupied this chair before me have done, that we have had no Paper on the diseases of children. I know few subjects more requiring elucidation, and offering a more promising field for investigation. It is, moreover, peculiarly within the province of the Society, and I am not without hopes that some of our Fellows, who hold appointments in connection with the numerous Metropolitan Hospitals for Sick Children, and there are many such on our list, will yet favour us with the results of their investigations in this important branch of medicine.

Unhappily no year passes in which your President has not the painful duty to perform of directing your attention to the losses the Society has to deplore by death, and to-night I have to mention to you rather more than the average number

of those whose earthly work is over. Of some of these I have not been able to gather any information which I need record. Doubtless they led useful, hardworking, and honourable lives, endearing themselves to their friends and patients, although it was not their good or evil fortune to occupy positions of prominence. Amongst those of whom I can find no obituary notice are George W. Nicholls, of Rotherhithe, George Edward Horton, of Dudley, Charles Fryer, of Sherburne, Yorkshire, Edward Morgan, of Llanelly, George Henry Waters, of Thatcham, near Newbury. Others, whose names are familiar to us from their public position, require more than a mere nominal mention.

DR. HERMAN BEIGEL died at Vienna, in his forty-ninth year, from the effects of a carbuncle. He formerly practised in London, and was Physician to the Metropolitan Free Hospital. He was a man of indomitable perseverance and energy and of great talents, but, like many similarly gifted, he does not seem to have succeeded in the struggle for practice, and he relinquished the attempt at the outbreak of the Franco-German war, during which he served with much distinction, gaining for himself the coveted honour of the Iron Cross. At its close he settled in Vienna, where he established a Hospital for Women, and devoted himself more exclusively to gynæcological work than he had done in London, and I understand that he had succeeded, in the short time he had been in that city, in gaining a considerable clientèle. Dr. Beigel translated many standard English works and papers into German, amongst others Sims's "Uterine Surgery," and Hewitt's "Diseases of Women," and he was the author of a large work on "Diseases of Women," which he completed shortly before his death.

LAURENCE MARTIN, M.D., of the University of Melbourne, where he was also Lecturer on Obstetrics, and Physician to the Melbourne Lying-in Hospital, died at Cannes on the 19th of January, aged fifty-six. Dr. Martin was the leading accoucheur in Melbourne, having succeeded the late Dr. Tracy in his public appointments, and in most of his private practice. His career is one of the many examples in our profession of a successful struggle against adverse circumstances. He was educated in Dublin, where he qualified in 1851, and commenced practice in that city in a small way, with an open surgery, by which means he earned sufficient money to enable

him to complete his education, and to take the Licence of the Edinburgh College of Physicians, which he obtained in 1853. Finding he was only able to earn a bare livelihood in Dublin, he determined to seek his fortunes in the colonies, and went to Australia in 1854, as surgeon to an emigrant ship. He settled in Melbourne, and gradually worked his way until, on Dr. Tracy's retirement, he was elected to succeed him. He had long devoted himself specially to obstetrics, and in 1870 spent a year in Europe for the purpose of visiting the leading obstetric and gynæcological institutions. He was highly esteemed in Melbourne, and enjoyed much popularity from his genial nature and pleasant social qualities. Eventually, as in many a similar sad case, the constant strain of anxious work told on him, and about eighteen months before his death he showed signs of an obscure paralytic affection, which eventually proved fatal, in spite of a cessation from work, and a visit to Europe.

DR. CHARLES JAMES CAMPBELL died in Paris, on the 23rd of June, aged fifty-nine. Dr. Campbell had only recently joined our Society, and his seeking our Fellowship at the close of a long and brilliantly successful career, when he had retired from the active practice of his profession, was, in itself, a compliment which we must all appreciate, and we may the more regret that death so soon severed his connection with us, since the work which occupied him at the time he was attacked with his fatal illness was an important Paper which he destined for publication in our "Transactions." If immense practice, crowds of wealthy and influential patients from all countries, and an unblemished professional reputation be evidence sufficient of success, Dr. Campbell may, indeed, be said to have succeeded to the utmost of human ambition, for probably no modern obstetrician, unless it were Sir James Simpson, could compete with him in these respects. But Campbell was much more than a merely successful physician. I may be pardoned, since I had not the honour of his acquaintance, if I quote from the letter of an intimate professional friend of his, which will show far better than any words of mine, the kind of man whose loss we have to deplore. "Nothing," he writes, "can give any adequate idea of Dr. Campbell's exquisite kindness and charm of manner, the sweet winning smile of his face, and the sudden sympathy he inspired by his touching simplicity and modesty. Dr. Campbell was one of the most prominent figures of his time, he enjoyed

the favour of the Court under the Empire, he was the fashionable and most sought-after accoucheur, universally recognised as one of the heads of his profession. His success in practice, and his skilfulness as an obstetrician, were by-words in Paris, and yet, amidst all his prosperity and unrivalled success, he remained the kindest, the best, and the most simple of men. No one was more free from conceit and affectation; nobody was more straightforward and liberal in his dealings with his professional brethren. His devotedness to his friends was unbounded, and, in all his numberless acts of charity and kindness, he showed a delicacy and tact which added a thousandfold to his goodness." Dr. Campbell was of purely English extraction, having been born at Stapleton Park, in the county of York, but his parents went to France when he was six years old, and he was entirely educated in that country, having been a pupil at the College at Sens, and afterwards at the College Rollin in Paris, in both of which he greatly distinguished himself. Practically, therefore, by residence and education, he became French, although he was always proud of his nationality. After his medical studies were completed he became an Interne at the Paris Hospitals, and in 1846 was appointed Chef de Clinique under Dubois at the Maternité. Here he performed post-mortem Cæsarian section, as many residents at lying-in hospitals have done before him, and it was characteristic of the man that he adopted the child he had saved, had him baptised with the name of "Cæsar Charles," and brought him up as his own son, until he died at the age of twelve years. Nor was this by any means his only act of kindness of the sort, for it is related of him that several of his patients asked him to be their intermediary in the reprehensible custom, which is not rare abroad, of putting their children out to nurse. More than one of these unnatural parents shortly ceased to defray the cost, and were never more heard of, and all the children so deserted Campbell himself took charge of, educated, and even provided for in his will. The starting point of Dr. Campbell's success was his early adoption of anæsthesia in midwifery, on which he published a Paper in 1849. This at once brought him a crowd of patients, and he was, unfortunately for science, too rapidly immersed in the busy life of a successful practitioner to admit of his paying the attention to literary work for which his talents undoubtedly fitted him. His views on this subject, popular as they were with his patients, were bitterly opposed by most of the leading French

obstetricians, and involved him in controversy, from which he could never entirely free himself, and which, to a man of his temperament, must have been most distasteful. He did not again publish anything of importance until failing health forced him to retire from active practice, and in 1874, and 1877, he published memoirs, well worthy of reading from their valuable clinical experience, on "Obstetrical Anæsthesia." To us, on this side of the Channel, with whom the use of anæsthetics in midwifery is an everyday custom, the controversy Campbell's writings gave rise to is altogether inexplicable, and it is curious that, even to this day, anæsthesia in labour is adopted with comparative rarity in France, and its use is still objected to by many leaders of the profession. Campbell specially insisted on the fact, the value of which has been from the first recognised in this country, that obstetrical anæsthesia should never, except for a special purpose, be carried to the surgical degree, and that the administration should be with the pains only, and should be conducted so as to keep up a condition of semi-anæsthesia. He also laid particular stress on the value of the obstetrical effort in producing intermittent cerebral hyperæmia, thus rousing, to some extent, the patient from a comatose condition, and materially contributing to her safety. If I might offer a criticism on his writings on these points, it would be that he under-estimated the tendency of long continued chloroform inhalation to induce relaxation of the uterus, thereby predisposing to post-partum hæmorrhage, a risk which I believe may be materially lessened by using a mixture of ether, chloroform, and absolute alcohol, instead of pure chloroform. Latterly Campbell was much interested in the study of puerperal septicæmia, and forwarded some contributions on the subject to the Academy of Medicine, which, I believe, have not yet been published. During the Franco-Prussian war, Campbell resided in his country-house near St. Cloud, after all the neighbouring residents had left, and occupied himself so strenuously in the endeavour to prevent the pillage of the deserted houses, that he was arrested by the Prussians, and was on the point of being shot, when he fortunately was saved by the fact of the Prussian General before whom he was conducted being the husband of an old patient of his, to which happy accident he owed his escape, and also secured the safety of the houses in which he was interested. He took an active part in resisting the excesses of the Commune, his servant being shot

by his side while he was engaged in attempting to extinguish a fire in a house in the Rue Royale. During the latter years of his life Dr. Campbell was compelled from ill-health to retire entirely from practice. He died unmarried, after a comparatively short illness, from peritonitis.

W. TILBURY FOX, M.D., must have been well known to most of us, and the profession at large feels his premature death as a heavy loss to medical science. Strictly speaking, perhaps, I should not include him in our list of deceased Fellows, since he had turned his attention to another branch of medicine, and had withdrawn from our Society. As, however, in his early years of professional life he devoted himself exclusively to obstetrics, and contributed largely to our "Transactions," I am sure I shall be pardoned if I speak of his loss as one in a great measure personal to ourselves. Dr. Fox was born in the year 1836, at Broughton, in Hampshire, where his father was a successful practitioner. He received his professional education at University College, of which institution he was a highly distinguished student. In 1857 he took the M.B. degree of the University of London, gaining the gold medal and scholarship in medicine. Shortly after he was appointed House-Surgeon to the General Lying-in Hospital in the York Road, Lambeth. This, probably, determined him to adopt the obstetric branch of the profession, and he was subsequently appointed Physician-Accoucheur to the Farringdon General Dispensary. He was elected a Fellow of the Society in 1860, and in the second volume of our "Transactions" he published a lengthy Paper on the "Pathological Lesions in Phlegmasia Dolens," which still remains one of the best of modern contributions to the study of the disease. Dr. Fox's object was to prove that the mere presence of coagula in the veins of the affected limb was not sufficient to account for the symptoms, and that the white, tense, and characteristic swelling was altogether different from œdema resulting from venous obstruction. He believed, and the assumption is far from unlikely, that in addition to venous thrombosis, obstruction of the lymphatics exists, which prevents the absorption of the effused serum. He also laid particular stress, and herein he was in accordance with the most modern authorities, on the influence of septic absorption originating in the uterus in the causation of the disease. Dr. Fox also contributed to the "Transactions" a lengthy and valuable Paper on "Puerperal Fever," based on statistics gathered from the records

of the "General Lying-in Hospital." It is interesting, as showing that his researches made him discard the idea of a peculiar specific fever to which lying-in women are subject, and he approached more nearly to the modern view of the subject, which identifies puerperal with other forms of septicæmia, than any writer of the day with whose work I am familiar. He also laid particular stress on the influence of perineal and other lesions of continuity in the genital tracts in affording ready channels for septic absorption, thus anticipating a point in the pathology of the disease which has been specially insisted on of late years. This brief record of the work Dr. Fox did in connection with our Society is sufficient to explain the regret with which many of his obstetric friends witnessed the transfer of his energies to other subjects. In 1863 he wrote his monograph "On Skin Diseases of Parasitic Origin," and in 1864 he published his "Treatise on Skin Diseases," a work which has run through four editions, has been translated into several foreign languages, and has obtained the position of a classic authority on the subject. At this time, also, he was much engaged in journalism, being employed on the staff of the *Lancet*, for which periodical he worked assiduously for many years. Of his career as a dermatologist this is not the place to speak. Suffice it to say that he was appointed Physician to the Skin Department at University College Hospital, that by his untiring energy he gained for himself a European reputation as an authority in his own subject, and that, at the time of his death, he had succeeded in establishing himself in a large and lucrative practice. He had suffered from rheumatism during a voyage in the East in 1864, and then probably originated the heart disease which subsequently proved fatal, and of the existence of which he was well aware. The knowledge that at any moment his life's work might be ended in no way daunted him, and to the last he maintained a bright and happy manner, labouring to do his work to the utmost of his power, while preparing himself for the end that he felt could not be far distant; doing, moreover, many an act of kindness to others in the most unaffected and unobtrusive way. It is strange how often we hear of such courageous battling with disease amongst prominent members of our profession, of which his friend Murchison, who died but a few weeks before him, may be mentioned as one example amongst many. I knew Dr. Fox well, and met him often, and nothing in his manner ever led me to suspect that he was aware of the

state in which he was, although I understand that to those who were more intimate with him he often spoke of his illness. In June he went to Paris for a short respite from work, and on the morning of the 7th he was seized with an attack of angina. He knew that the end was come, bade farewell to his wife, and passed peacefully away, leaving behind him an honoured name, and an example of steady perseverance and uncomplaining resignation that teach a lesson which none of us need be ashamed to lay to heart.

PYE HENRY CHAVASSE, F.R.C.S., died at Edgbaston, Birmingham, on the 21st of September, in his seventieth year. He was born at Cirencester, and received his medical education at University College. He became a member of the College of Surgeons in 1833. He settled in Birmingham, and devoted himself specially to the diseases of women and children. He was best known to the profession through his popular works, entitled "Advice to a Mother on the Management of her Children," and "Advice to a Wife on the Management of Herself." Although the profession always looks with some suspicion on works of this type, there can be no doubt that they supplied a want, since the former has now reached its 13th and the latter its 12th edition, most of these issues being made up of 20,000 copies each, and they have, therefore, had an enormous, and probably unparalleled circulation. He also contributed several papers to the *Lancet* and *British Medical Journal*. He was not officially connected with any of the public medical charities of Birmingham, but when the idea was mooted in 1872 of founding a hospital in that city for the diseases of women, he was one of its earliest and most enthusiastic supporters. Mr. Chavasse had retired from practice five years before his death.

CROSBY LEONARD, F.R.C.S. Edin., died at Clifton on the 31st of October, aged fifty-one years. He was born at Bristol in 1828, studied at Bristol, London, and Paris, and established himself in his native city, where he enjoyed a large consulting and family practice. In 1854 he was appointed Lecturer on Anatomy in the Bristol Medical School, an office he held until 1864, when he changed it for that of Lecturer on Surgery. From 1860 to 1874 he was Surgeon to the Bristol Infirmary. For some time before his death he suffered from an obscure form of paralysis, which compelled him to relinquish active work.

And now, gentlemen, there only remains for me the duty of

offering to the Fellows and Office-bearers of the Society my grateful thanks for their patience and courtesy to me during the past year, and to express the hope that the coming one may equal, if not exceed, it in prosperity and progress.

CASES OF LATERAL OBLIQUITY OF THE PREGNANT UTERUS.*

By J. BRAXTON HICKS, M.D., F.R.S., &c.,

Obstetric Physician to Guy's Hospital, President of the Hunterian Society, &c.

I WAS asked to see a lady with a tumour on the right side, and as she was supposed to be four months pregnant, it had been feared lest it might be a case of extra-uterine foetation. On making the vaginal examination, I noticed that the passage was divided into two sides by a septum, and I could feel an os uteri on either side. Further investigation showed that the right uterus of a dual arrangement was pregnant. She went on very well, and was delivered at full term; but it is worthy of note that the medical man was not convinced of the real state of affairs even after attending her in the labour, not until he had at my request made a special examination a month afterwards. The pregnant side had developed so much as to mask the non-pregnant side.

In view of this case, and of some others of high practical interest, I have thought that it may be well to narrate briefly the results of cases where the uterus has been tied down more or less firmly by adhesions, during its development in pregnancy.

Obliquity of Pregnant Uterus—Miscarriage at Sixth Month.

I was asked to see a woman who was presumably pregnant at sixth month, but who had the pregnant mass entirely over on the left side. It was a source of doubt whether the pregnancy were extra- or intra-uterine, and I was asked to see her to endeavour to solve the difficulty. Whilst arrangements were being made she miscarried, which cleared up the matter; but as the uterus then remained to the left side there was no doubt that it was restrained in that direction.

* Read before the Hunterian Society, Jan. 28th, 1880.

*Obliquity of the Pregnant Uterus from Inflammatory Adhesion—
Delivery at Full Term.*

A patient who had been under my care for pelvic-peritonitis and cellulitis in Guy's Hospital came to me complaining of pain in her left side. She was pregnant about four months, the first time since the inflammation. It was very evident that the uterus was drawn over and tied down to that side. I recommended her to avoid any straining, lifting, &c. ; gave her opiates, &c. I saw her frequently during pregnancy. The uterus remained during the whole time drawn to the left. At times the pain was very severe, and one felt inclined to interfere with the pregnancy, but by a short rest of a few days at a time, and opiates, she was able to complete her full term and was delivered without trouble. I saw her afterwards, and the uterus was nearly in right position.

*Obliquity of the Pregnant Uterus, adhering to One Side—Delivery
at Full Term—Rectification of Position in Third Pregnancy.*

I was asked to see an Irish lady in the last days of pregnancy. She had complained very much of the right side of abdomen, and had fallen into a kind of epilepsy much mixed with hysteria. It appeared that a certain amount of uterine action had occurred, and that during each contraction of the uterus she went off into this convulsive state. I found the uterus tense and active, and the contractions prolonged. Her pulse was 120, the tongue was furred, and she was in a semi-conscious state. There was uneasiness in the right side of uterus towards the groin ; the uterus was obliquely placed, its right side being close to the right flank, while on the other side there was resonance. The os uteri pressed against the pelvic wall on the left, so that the finger passing in the vaginal axis came against the right side of the cervix : it was still closed. I advised full opiates to be continued. This relieved the pain and gave some repose from uterine action. However, next day the os uteri began to open, and the labour was terminated without trouble, there appearing no check by reason of the obliquity, which was very marked after the uterus was empty. The child was dead. When she became again pregnant I saw her at the seventh month ; the uterus was then more naturally placed, but still much to one side. I recommended induction of labour three weeks before term. She had an easy labour and the child did well. On the third pregnancy the uterus was nearly central ; she went to full term and was again delivered of a living child who did well.

Regarding the cause of the obliquity, it was clearly, on careful examination, not due to a double uterus, nor was there any evidence of a bicorned one. But the examination seemed to show that some old inflammatory change had caused adhesions to the side of the pelvis, though no history of this could be made out.

Obliquity of Pregnant Uterus—Adhesions—Fall—Ruptured Uterus—Death—Post-mortem Examination.

A woman nearly at full term fell down stairs, suffered from the fall somewhat in her side, but did not lay up. A few days afterwards she again fell down, and of this she complained much, for the pain in her abdomen greatly increased. There was an escape of liq. amnii, and labour was expected. The os dilated to the size of a crown piece, but no part of the fœtus presented; the medical man waited, but no labour pains came on. The abdomen shortly became tender, and there were symptoms of acute peritonitis. I was asked to see her about the eighteenth day. She was exceedingly ill; furred brown tongue; pulse 130 per minute, vomiting, &c. The abdomen was very distended and tympanitic, but on palpating a solid was felt about an inch or so deep, pretty well over the whole abdomen. The os was still large, the cervix about same size for some distance upward, not, as in ordinary cases, spreading out above. Neither the presentation nor membranes could be felt; but external to the uterine canal a hard lump was perceptible. As it was certain the conception had been intra-uterine, and that now the uterus was emptied, and as there was evidently gas outside the mass in peritonæum, I came to the conclusion that a rupture had occurred, and that the fœtus was in the abdominal cavity. As the case had gone on so long and she was so exceedingly ill, I thought it best to await, and chance the possible completion of the encysting process; she seemed too ill to give us any hope she could survive the operation for removal. She rapidly sank, and died three days after my visit, or about two weeks after the rupture.

A post-mortem showed that the diagnosis was correct; the uterus had ruptured on the right side above its attachment to the vagina; the fœtus had remained almost stationary, the uterus evidently having, by its contraction, drawn itself off the fœtus and being found on the left side of it; part of the placenta was in the abdomen, the other part in the rent, thus permitting communication with the external air through the opened os and cervix uteri, hence the fœtus decomposed, and gas was generated. There had been a large effusion

of plastic lymph enclosing the fœtus ; this the gas had distended about an inch around the fœtus. Had it not been that the placenta permitted access to the external air, it is very probable that the fœtus would have been encysted and remained quiescent. But the cause of the rupture was abundantly apparent ; the uterus was tied down by old adhesions to the left side, so that it could not rise into the middle line ; the rent, however, was on the opposite side.

Many points of interest thus show themselves in this case—namely, the cause of rupture ; the diagnosis, at first, and after decomposition ; and, thirdly, the treatment.

Obliquity of Uterus from Adhesions—Miscarriage at Seventh Month—Death—Post-mortem Examination.

A mother of six children. Since her last child, eighteen months ago, she had suffered from four or five attacks of pain and swelling in right side of abdomen just above Poupart's ligament ; there had been constipation with them. These had subsided : she became pregnant ; and then soon again the pains commenced, continuing a few hours ; but as she approached the seventh month she gradually became worse, pains more continuous, accompanied with diarrhœa and vomiting. The temperature, however, remained normal, or nearly so. I was asked to see her. The uterus was oblique, evidently held firmly to the right inguinal region, and closely in contact with that side and flank, while the flank and groin of the other side were resonant. The os was found over on the other side, touching the left vaginal wall hard over against the pelvic brim. She had complained of violent straining, with very severe pain in right groin, in paroxysms about every ten minutes, not coincident with the uterine contractions which were well marked. The fœtus was living. An opiate injection, and sedatives by mouth, were ordered, and this temporarily gave relief. However, a few days after this she became much worse as to pain and vomiting, with a rapid pulse ; the os uteri was found to be dilating, and the membranes tense across. I ruptured the membranes, upon which the head soon occupied the os, which then relaxed in the natural manner. Though the axis of uterus inclined towards the left side, yet the os dilated sufficiently to permit the child to glide down without much difficulty, and it was born within two hours of the rupture of the membranes. The placenta followed naturally, without hæmorrhage. She went on

slightly improving for some days, when vomiting became severe ; and this ceasing, diarrhœa followed. The pain in the abdomen and left side nearly passed off, but she continued very exhausted, with small quick pulse, though normal temperature. About the sixth day after delivery rapid collapse came on, and she died in a few hours afterwards. The post-mortem revealed a state of low peritonitis, having its starting point in the ileum about three inches from the caput cæci. It was uncertain whether the bowel had been already perforated, but when it was lifted up there was a perforation with the same gruelly matter in peritonæum, as was found within the intestine. But, besides this, there was an old abscess on right side of uterus (which was the mass felt at first), with firm walls, pus being inside, about the size of an orange. This had prevented the uterus from rising during pregnancy.

Remarks.

In estimating the risk which a woman runs during pregnancy, coupled with adhesions to the side, one must admit that probably many cases occur in which no serious symptoms arise, that the adhesions stretch out with more or less ease, and the uterus evacuates its contents without danger. At the same time, I must say that these cases comprise nearly all of the kind in which I have been consulted, and therefore either the severe forms are rare—I mean where the adhesions are very strong—or that, in the majority of cases, where pelvic peritonitis had formerly been present (and these are by no means rare), the adhesions have either been absorbed or readily yielded to the tension. But in these cases where we find the uterus rises with difficulty and with much pain, it is clear, from the termination of some of these cases, that the risk of danger is great throughout pregnancy, and we ought to impress upon our patients the necessity of care in movement, and impose upon them complete rest, at least for a time. In the last case narrated, it is probable that serious symptoms would have arisen under any management. When I saw her first I waited, hoping for some subsidence in the symptoms ; and when I was about to induce labour, Nature undertook to relieve me of the responsibility. The act of labour doubtless hastened the serious symptoms. The termination of pregnancy, at least before viability of the foetus, ought not to be lightly undertaken, and therefore it would be wise in severe cases to postpone this action till after this time, keeping the patient in absolute rest, at least till viability has been attained.

THE SHAPE OF THE HEAD OF AN EXTRA-UTERINE FÆTUS.

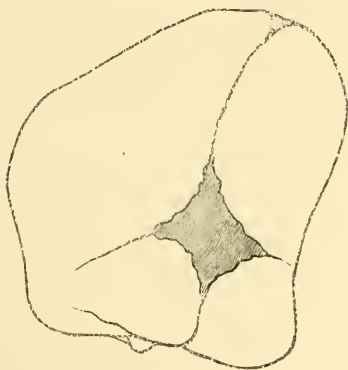
By WILLIAM L. REID, M.D.

Physician-Accoucheur to the Western Infirmary, Glasgow.

TWELVE years ago this patient was delivered, in easy natural labour, of a female child, which still lives.

On the 28th of March, 1879, Dr. Alexander Patterson, of the Western Infirmary, Glasgow, opened her abdomen for extra-uterine pregnancy. The details of the diagnosis (which was somewhat obscure) and of the operation, we hope to publish at another time. Meanwhile, suffice it to say that the operation was conducted on strictly antiseptic principles; the child was extracted alive and still lives, but the mother died from exhaustion on the fourth day after the operation, having been previously confined to bed for twenty-eight weeks and very greatly weakened by repeated attacks of peritonitis. I extracted the child by seizing its legs, and half an hour afterwards made the accompanying sketch of its head, standing behind it as it lay on the nurse's knee.

A few weeks thereafter Dr. Matthews Duncan saw the sketch incidentally, and advised me to send it with a short note for publication.



The following points are noteworthy in connection with the case:—The pregnancy was considered to be of about eight months' duration and the membranes contained a considerable quantity of amniotic fluid. The child lay in the first position of the breech, *i.e.*, its left shoulder uppermost, its face looking backwards and to the right side of the mother. It was well nourished, but its joints were stiff, and at the age of three months the knees and elbows

could not be quite straightened out. Words cannot add much to the information given by the cut except, perhaps, by mentioning that the suboccipito-vertical diameter was proportionally very great. I visited the child on the 19th June and found the head still of much the same shape, except that the very prominent parts had fallen a little. With a pair of callipers I made the following measurements :—

Occipito-frontal diameter		$4\frac{7}{8}$	inches
Bi-parietal	„	$3\frac{7}{8}$	„
Suboccipito-vertical	„	$4\frac{3}{4}$	„
Suboccipito-bregmatic	„	$4\frac{3}{8}$	„
Suboccipito-frontal	„	$4\frac{7}{8}$	„
Occipito-mental	„	$5\frac{5}{8}$	„
Bi-parietal circumference		12	„
Occipito-frontal	„	$14\frac{1}{2}$	„
Occipito-mental	„	$15\frac{3}{4}$	„

Perhaps the only point in these measurements worthy of special note, as differing greatly from that of a large child at the full time, is the disproportionately great suboccipito-vertical diameter.

Now, the child is healthy. The head retains the main features of its original shape as described: the left frontal the most projecting part; the right occipital the most flattened. The measurements on January 8th, 1880, are :—

From most prominent part of left frontal bone to the right occipital region, $5\frac{3}{8}$ inches.

From the most prominent part of the right frontal to the left occipital region, $5\frac{3}{4}$ inches; indicating that although the right temple is flattened, yet the projection of the left occiput is so great as to make that oblique diameter greater than the other to the extent of $\frac{3}{8}$ inch.

Occipito-frontal diameter		$5\frac{1}{2}$	inches
Bi-parietal	„	$4\frac{3}{8}$	„
Occipito-mental	„	$6\frac{3}{4}$	„
Suboccipito-vertical	„	$4\frac{3}{8}$	„
Suboccipito-bregmatic	„	$4\frac{7}{8}$	„
Suboccipito-frontal	„	$5\frac{5}{8}$	„
Bi-parietal circumference		14	„
Occipito-frontal	„	$16\frac{5}{8}$	„
Occipito-mental	„	$19\frac{1}{2}$	„

When one looks straight down on the vertex of the child's head the left ear is seen placed about an inch and a half behind the right one.

Immediately after its birth I noticed that the sole of the left foot looked out from, and that of the right looked in, towards the middle line of its body. This condition of the feet still exists to some extent.

This case may prove important as well as interesting to those engaged in the study of the shears and of the physiological asymmetry of the foetal head. On these subjects Papers appeared in the two last volumes of this Journal, from the pens of Dr. Matthews Duncan and of Dr. Stadfeldt; and to these it is sufficient meantime to refer the reader.

A CASE OF CONCEALED ACCIDENTAL HÆMORRHAGE.

By G. ERNEST HERMAN, M.B. Lond.

Assistant Obstetric Physician to the London Hospital.

THE patient, a multipara, had enjoyed good health throughout her pregnancy.

On Nov. 19th, 1879, at 9 A.M., she was said to have tumbled off a night-stool; and it was evident, from bruises which were present on different parts of her body, that she had received some injury. She herself, when first seen, was too ill to give a detailed account of the accident.

She sent for her medical man about 3.30 P.M., and Dr. Burtonshaw arrived at about 5 o'clock. He found her in a state of deep collapse, for which he could discover no cause. She was cold and shivering; her face pinched and pale; lips blue; pulse scarcely perceptible. She did not complain of any pain; but she was too ill to describe her sensations. There was no discharge, nor any sign of labour. The os uteri would admit two fingers; the membranes were entire, and the head was presenting. On examining the abdomen he found the uterus very large and very high, and could hear no foetal sounds. He ordered that she should be wrapped in blankets, and that a hot bottle should be put to her feet, and administered brandy and carbonate of ammonia.

Dr. Burtonshaw again saw her at 9 P.M. She was then much the same. Since his former examination there had been a slight discharge of blood, such as women call a "show ;" but nothing sufficient to account for collapse.

At 10.15 P.M. Dr. Worley saw her with Dr. Burtonshaw. She was still in much the same state. The membranes were now ruptured, and a dose of ergot given ; but no sign of labour appeared. Therefore, at 11 P.M., the smallest size of Barnes's water-bags was put into the os. It was at first well grasped, but soon slipped out, and was re-introduced. On withdrawing it the second time, a sudden and great gush of blood took place ; its amount, Dr. Burtonshaw thought, must have been at least a quart. The vagina was then plugged ; but oozing of blood continued, notwithstanding the plugs.

I was then sent for, and arrived at about 12.30 A.M. I found her in the state that has been described. The plugs in the vagina were saturated with blood. The os uteri was about the size of a shilling, and its margins very rigid : there were no pains. I introduced successive sizes of Barnes's bags, and dilated the os with them, until the largest bag slipped out ; but the os dilated very slowly, and its margins remained very hard. Then I applied forceps, and cautiously attempted to deliver ; but the cervix was so rigid that it seemed impossible to expand it without great force, and therefore risk of extensive tearing. Chloroform was then given, and after a little longer trial with the forceps, a careful examination was made, and a loop of cord, quite pulseless, was felt by the side of the head. The forceps was therefore abandoned, and the head perforated, crushed, and extracted with the cephalotribe. The placenta was expressed without difficulty. The patient did not rally, and died about three-quarters of an hour after delivery.

Peeling of the skin showed that the foetus had been dead some little time. Unfortunately, a careful examination of the placenta was not made.

I think this case worth putting on record, because, although similar ones have been well described, and their features are known to the profession, yet they are unusual. The case exhibits very well the symptoms of the class it belongs to. There was the deep collapse, without any apparent cause, and the complete absence of uterine action. That the patient did not complain of pain may have been due, as her medical man thought, to the

severity of the collapse, which made her unable to do so. But Goodell* quotes two cases in which pain was absent, and several others in which it was only slight. The history of violence which was given accords with that of thirty-five per cent. of the cases collected by Goodell. It is to be remarked also, that, as in many similar cases which have been recorded, no relief followed rupture of the membranes. This case belongs to the second of the two groups into which Dr. Braxton Hicks, in his monograph on the subject,† has divided these cases—viz., those “in which the internal effusion is only marked for a certain time, and to a certain degree. Till the blood appears externally, the case is truly one of concealed hæmorrhage, giving rise to the same symptoms, as also to the same difficulty of diagnosis. When at last flooding appears, the source of the faintness becomes tolerably clear, and the treatment more easily decided upon.” As to the circumstances which led to the concealment of the hæmorrhage, the case would seem, from the manner in which the escape of blood followed the distension and removal of a Barnes’s bag, to fall into the fourth of the classes into which Goodell has divided them—viz., “when the presenting part of the fœtus so accurately plugs up the maternal outlet that no existing hæmorrhage can escape externally.”

It appears to me that in these cases the collapse is certainly due more to the distension of the uterus than to the loss of blood. Goodell quotes‡ several cases in which the actual amount of blood extravasated was not considerable; in one (Case XVIII.) it was only four ounces. The stretching of the uterine wall also seems the probable explanation of the absence of labour pains. If this view be correct, the obvious indication is to empty the uterus as quickly and completely as possible. The most speedy way of doing this, the membranes being entire, is to perform bi-polar version, then rupture the membranes, and bring down a foot. It is obvious that this proceeding will relieve the distended uterus to a greater extent than the simple rupture of the membranes. That rupture of the membranes is frequently inefficient in these cases has been pointed out by Dr. Braxton Hicks. The objections to an early resort to version, are (1) the danger to the life of the child which it involves. I do not think that this consideration is entitled to much weight, because the extent to which the

* “American Journal of Obstetrics,” vol. ii. 1870, p. 281.

† “Obstetrical Transactions,” vol. ii. 1861, p. 53.

‡ Op. cit.

function of the placenta is interfered with in this complication is known to be so deadly to the child that the prospect of saving it by any mode of treatment is very small. Even if there were a larger chance of safety for the child, we ought to consider first the life of the mother. The other objection, which is raised by Goodell, is that* "to perform version in a case of concealed flooding, the whole hand will require to be introduced, from the fact that the bulging-in of the placenta or membranes, by the extravasation behind them, would present a ledge over which the breech or body of the child could not be made to glide by the feeble purchase of the bi-manual method of version." To this I would answer, that the objection is a theoretical one only, and it is possible that the anticipated difficulty may not be met with in practice. And if bi-polar version be found to be impracticable, we can but rupture the membranes, and proceed as if we had not attempted it. I am therefore inclined to think that, where concealed accidental hæmorrhage can be diagnosed, it is better practice to at once attempt bi-polar version than to rupture the membranes, which at present, I believe, is the orthodox practice.

Abstracts of Societies' Proceedings.

OBSTETRICAL SOCIETY OF LONDON.

Meeting, Wednesday, January 14, 1880.

W. S. PLAYFAIR, M.D., F.R.C.P., *President, in the Chair.*

Rupture of Fallopian Tube.

Dr. GODSON showed, for Mr. J. Kingston Barton, the uterus and its appendages of a woman, aged thirty, who had died from internal hæmorrhage. She had been married two months. Menstruation had been regular; the period commenced four days before her death, at its proper time. During this day, whilst walking, she suffered acute pain in the left iliac region, nearly fainting. This passed off, but recurred again four days after while menstruating. Collapse and the general signs of internal hæmorrhage became manifest, and she died within twelve hours. The autopsy showed the abdominal cavity to be full of fluid blood, with

* Op. cit., p. 345.

large clots in the pelvic portion. The left fallopian tube was found distended in one part to the size of a small walnut, and on its anterior aspect was a small irregular rent, which led into a cavity in the centre of what appeared to be organised blood-clots. No ovum could be discovered, and the uterus contained no decidual membrane. The right ovary showed a well-marked corpus luteum.

Mr. Barton had sent the specimen as one of tubal gestation and rupture, but Dr. Godson could trace no signs or symptoms of pregnancy. At the same time, he failed to account in any other way for the distension of the tube, both ends of which were patent. Had not death occurred, the blood would have become encysted, and have formed a large hæmatocele.

Dr. EDIS thought that though the evidence of extra-uterine gestation was slight, it was not positively proved that it had not existed. The fallopian tube was not only distended, but also thickened and developed. There was also a marked corpus luteum like that usually met with in pregnancy.

The PRESIDENT thought the specimen like a tubal pregnancy, and suggested that a committee, consisting of Drs. Galabin, John Williams, and Godson, should examine and report upon it.

Monster.

Dr. HILLIARD showed a one-headed twin monster, the bodies of which were connected to below the single umbilicus, where they became distinct and perfect. A single head was placed on four shoulders, the only peculiar feature of which was a third ear between two occipital bones.

Superfætation.

The PRESIDENT showed, for Mr. Clabburn, of Turnham Green, a specimen of supposed superfætation. Dr. Playfair suggested that it might be a twin foetus mummified.

Report on Uterus removed by Dr. Heywood Smith, shown at last Meeting.

A careful examination by Drs. Galabin and John Williams led them to consider the growth as a cylindrical epithelioma, which showed some tendency to pass into a true medullary carcinoma.

On the Pain in Pelvic Cancer, and its Relief by Morphia.

By FRANCIS HENRY CHAMPNEYS, M.B. Oxon.

The former and larger part of the Paper consisted of a clinical study of fifty cases in the wards of St. Bartholomew's Hospital, and was illustrated by fourteen Tables, dealing with the ages of the patients, the first symptom noticed, the seat of pain, its locality, the date of its commencement, its quality, amount of intensity, time of intensity, and the relation of pain to hæmorrhage. The analysis showed some points of departure from what have been considered established facts ; for instance, as many of the patients were from thirty to forty years old, as from forty to fifty ; and again, pain rather than hæmorrhage was the first symptom noticed. On these the author remarked that his cases were only fifty, and can therefore not overthrow Dr. West's larger number of 166, but suggested that as this part of the question cannot be founded on objective facts, but must depend on the patient's memory, which memory might be supposed to retain hæmorrhage rather than pain, it may be supposed that pain, as a first symptom, may occur oftener than is usually imagined. It was shown that cancer may be painless at almost every stage, but it was remarked that of the author's cases none were painless in which hæmorrhage was absent. The seat of pain was carefully ascertained by making the patient lay her hand or finger on the spot. The localities were most various, the region of prevalent uterine pains being seen, however, to be mainly bounded by the line of the sacrum above and the knee below. It is remarkable that the pains were six times as common on the left as on the right side, which cannot depend on locality of the disease, but must depend on the difference with regard to sensation between the two halves of the body, a difference seen also in the common left-sided pain of females, and the preponderance of left-sided hemi-anæsthesia. "Man is not an absolutely bilaterally-symmetrical animal." Aching of the whole front of the thighs and pain transfixing the body are believed by the author to be at least uncommon, except in cancer. "Back-ache" amounted to 24 per cent. ; pain in the lower abdomen to 14 per cent. ; pain in the groins to 18 per cent. of all pains. It was shown that no relation existed between intensity of pain and duration of disease. Thirty cases showed the pain to be worse "post-meridiem," none "ante-meridiem." The author suggests a connection between pain worse at night and

pain relieved by bleeding, as possibly depending on the increase or diminution of vascular tension in the diseased tissues, which is illustrated by the nocturnal tightness of bandages, and he reminds us that in all his painless cases there was bleeding. Three remarkable cases are given at length, of nervous affection, in one of which there was paroxysmal nocturnal motor and vasomotor disturbance of one, then of both legs, depending probably on irritation reflected at the spinal cord. Of the methods of administering morphia, the hypodermic injection was shown to be far the most, and the suppository the least, effectual.

Dr. MATTHEWS DUNCAN regarded the Paper as a very valuable one, but demanding perusal at home, and study, rather than criticism.

Dr. GRAILY HEWITT remarked that in regard to the pain in cases of cancer of the uterus or parts adjacent, there was one feature of great diagnostic value—viz., its spontaneity; whereas that due to various other uterine disorders was caused or increased by position or motion. Another point of diagnostic value in regard to cancer was the rapidity of the pulse, which would be rarely found under 90 beats per minute. To relieve pain he preferred the injection of laudanum into the bowels.

The PRESIDENT was surprised to hear pain spoken of as the most frequent first symptom. He had seen so many cases in which the disease was far advanced before it occurred. He inquired whether local treatment had been attempted to lessen pain, and if iodoform had been used for this purpose, and with what results?

Dr. GODSON, while recognising the amount of time and labour, and the care spent in compiling the Tables, considered fifty cases far too few to draw any very definite conclusions from. Out of the author's fifty cases, no less than twenty were below thirty or above fifty years of age; this made the per-centage of cases between thirty and fifty years of age far too low. He (Dr. Godson) had made an analysis of 150 cases of uterine cancer which he had attended, and 44 were between thirty and forty, and 66 between forty and fifty years of age, which accorded with Dr. West's statistics. With respect to the locality of the pain at the commencement, it was generally very difficult to get reliable information, at all events when the disease was far advanced. That which existed at the present time was so apt to influence the mind of the sufferer; the same applied to the first symptom,

but Dr. Godson was of opinion that this was more generally hæmorrhage ; at all events, pain was often a very late symptom, only occurring when the disease spread to the structures surrounding the womb. In one of Dr. Champneys' cases, the disease commenced with bleeding after parturition. This was not by any means an uncommon case. In Dr. Godson's first series of 50, no less than four dated the commencement of their illness to their confinements, never free from hæmorrhage since ; and yet previous to delivery not a sign existed, if pain, hæmorrhage, and watery discharge be accepted as characteristic symptoms. The uterus while undergoing involution appeared to be a very fertile soil for the germination and rapid growth of cancer. Dr. Champneys had shown that the hypodermic injection of morphia was the most effectual method of relieving the pain ; this was not peculiar to cancer ; it applied to pain of every description, from all causes ; but the method of application was so inconvenient that it could not be generally adopted, and was very unlikely to supersede the administration of morphia by the mouth.

Notes on a Jamaica Galactagogue.

By Dr. IZETT W. ANDERSON (of Jamaica).

The author commenced by narrating a case in which a patient had been under his care for pelvic abscess, the child being brought up by hand. Her breasts were flaccid and entirely destitute of milk. Subsequently he found her nursing the child, her breasts being abundantly supplied. She told him she had brought down the milk by drinking cotton-leaf tea. This drew his attention to the drug as a galactagogue, and a lengthened experience in its use had proved its undoubted efficacy. The tea is made by infusion from the green leaves of one of the shrubs that produces the cotton of commerce, the "*Gossypium Barbadosense*," is prepared like ordinary tea, and is not unpleasant to the taste if mixed with milk and sugar.

The author concluded by recommending for trial a concentrated preparation of it, "*Liquor Gossypii Carticis*," imported by Messrs. Corbyn, Stacey & Co.

The PRESIDENT thought that the suggestion might be very useful, and hoped that other Fellows of the Society, resident abroad, would follow Dr. Anderson's example, and send us notice of any local drugs of value unknown to us.

Dr. GODSON said that he had been promised by the author some of the fresh leaves, and he hoped to be able to try their effect and lay the results before the Society.

Foreign Body in the Vagina—Removal after Four Years.

Drs. CHARLES H. CARTER and DALY contributed the notes of the case of a girl, aged seventeen, who since thirteen years of age had suffered from a fetid watery discharge, often sanious. On inquiry it was elicited that she had passed a reel into her vagina to stop the flow of blood when the catamenia first appeared. This was found by Dr. Carter firmly imbedded, and surrounded by cicatricial tissue, and was removed, free incisions being made into the contracted part. Two years subsequently an operation was performed, as marriage was contemplated, and the vagina was found narrowed by cicatrices. Shortly afterwards she became pregnant, and labour was induced by Dr. Daly at the eighth month, the vagina being still strictured. The cicatricial tissue had to be incised, and the forceps was applied, the child born alive, but died shortly afterwards. The second labour was allowed to proceed to full term, the cicatricial bands were incised, and delivery occurred naturally, resulting in the birth of a child, still living.

A Case of Large Foreign Body in the Vagina for Two Years, Perforating the Posterior Wall of the Bladder—Its Removal and Closure of the Fistulous Opening.

By Dr. CHARLES H. CARTER.

The patient, aged twenty, had two years previously passed the metal cup of a drinking-flask into the vagina. At first it caused her great pain and some bleeding, but this soon ceased, and she became regular. Six months afterwards the urine began to dribble away. The author removed the foreign body, which, with the phosphatic deposit encrusting it, weighed nearly six ounces; part of it was in the bladder, and the fistulous opening was two inches broad. A month afterwards the fistula, much reduced in size, was closed by operation, and a complete cure resulted.

Dr. EDIS mentioned the case of a large oval pessary, the size of a goose's egg, which he had removed from a woman, who had worn it for eleven years, ignorant of its presence. She had many symptoms of cancer. It showed the importance of giving full directions to patients in respect to pessaries inserted.

OBSTETRICAL SOCIETY OF DUBLIN.

*Meeting, Wednesday, 23rd July, 1879.*E. B. SINCLAIR, M.D., *President, in the Chair.**Exhibition of Specimens.*

Dr. ATTHILL exhibited a calculus larger than a pigeon's egg which he had that morning removed from a patient in the Rotunda Hospital after dilatation of the urethra, effected by means of Weiss's dilator.

Dr. ATTHILL exhibited a mass which he had likewise removed from the body of a patient in the Rotunda Hospital. It was a specimen of ovarian cystic disease co-existent with fibro-cystic disease of the uterus. The woman came under his care about a year ago with a large fluctuating tumour in the left iliac region, and a large solid mass in the right iliac region. There was a sulcus between the two, and the diagnosis was obscure. The patient was seen by Dr. Kidd and others. He (Dr. Atthill) arrived at the diagnosis that there were two distinct diseases—namely, ovarian cystic disease on the left side and a fibrous tumour on the right. He tapped the ovarian cyst, and drew off a considerable quantity of fluid in November last. This was followed by great relief. When the cyst was emptied the mass which lay on the right side became more and more apparent, and it was plain that it was fibrous disease of the uterus. He decided not to operate, because—in consequence of the double disease and the enormous mass to be removed—it was improbable that the patient would have survived an operation. She got relief after tapping, left the hospital, and resumed her duties as a cook. After two or three months she came back, and was readmitted in March last, nearly though not quite as large as before, and suffering horrible pain. The mass had entered the iliac region, was partially adherent to the wall, and had increased so much in size that there was some doubt as to whether it was malignant or not. She died two days previously, and a specimen of the tumour was before them. The following was a note of the autopsy:—

Post-mortem.—Twenty-three hours after death rigor mortis well marked. The body was very emaciated, and the glands in the groin were enlarged. *Thorax.*—Caseous degeneration of lungs, clots in right auricle and ventricle of heart, thickening of mitral

valve, and contraction of orifice. *Abdomen.*—On opening the abdomen there was found a large mass filling up the whole of the lower part of this cavity, which consisted of a number of cysts on left side, “one of which sprung from the left ovary, and was as large as a child’s head,” and a solid tumour apparently springing from the wall of the uterus to the right. The whole of this mass was firmly adherent to the surrounding structures. It had displaced the bladder to the left. The right kidney was very small, and its pelvis was enormously dilated. The whole course of the ureter of the same side was dilated—so much so as to be mistaken at first for a coil of the small intestine. The left kidney was very much enlarged, with its pelvis and ureter also dilated. The capsule of the kidneys peeled off readily, and it was thickened. The cyst was ovarian. The uterus was visible, with the large fibro-cystic mass which was diagnosed during life. The case was interesting as showing the occurrence of two distinct diseases—ovarian-cystic and fibro-cystic—in the same patient.

Case of Ovarian Tumour Obstructing Labour.

By LOMBE ATTHILL, M.D.

Master of the Rotunda Hospital, Dublin.

The existence of an ovarian tumour concurrently with pregnancy is not a very rare occurrence, but the tendency in all such cases is for the tumour to be pushed up by the uterus, as that organ rises out of the pelvis, and, consequently, though the patient may suffer great inconvenience, or even distress, from over-distension of the abdomen, still it is not uncommon for a pregnant woman who may be the subject of ovarian cystic disease to go to the full term of pregnancy, and to be delivered without difficulty. Two such cases have come under my own observation.

In a few comparatively rare cases the tumour, instead of being pushed upwards by the uterus as it enlarges, falls down into Douglas’s pouch. This can only happen before the uterus attains sufficient size to fill the brim; and if the existence of an ovarian tumour in that situation be not detected till some time after the occurrence of the accident, it may be impossible to displace it, and it may become a serious obstacle to the descent of the foetal head. The tumour in these cases lies in the hollow of the sacrum and possibly may fill the whole pelvic cavity. Such cases are described by all recent writers on obstetrics, and diagrams

illustrating this position of the tumour are given by Barnes, Leishman, and others, but they do not give the details of any case.

Smellie records a case (No. 67)—not seen, however, by himself—in which labour was obstructed by a tumour which so nearly filled the pelvis that the attendant “had scarce room to introduce one or two fingers betwixt it and the pubes.”* This, probably—as pointed out by Dr. M’Clintock, in his note on the case—was an ovarian tumour; and Dr. M’Clintock in the same place records the particulars of a case in which an ovarian tumour, “somewhat bigger than a turkey’s egg, was felt behind and to the left side of the vagina,” in a woman under his care in the Rotunda Hospital. He succeeded, after a protracted labour, in delivering her with the forceps. In the case I am about to relate the conditions present were materially different, and, so far as I am aware, none presenting exactly similar conditions are recorded.

The patient was a very healthy, well-made young woman. Labour set in about 5 A.M., on the 24th May, but, the pains being only slight, I was not sent for till 4 P.M. On examining her I found a very unusual condition to exist. A large bag of waters nearly filled the vagina. This, during a pain, was felt to be constricted above by the os uteri, which was more than half dilated. The presentation could not be made out. Behind the cervix an oblong mass could be felt extending from the iliac synchondrosis on the one side to that on the other. It did not give to the finger the impression of being a tumour, but rather as though a firm pad, the thickness of the arm at the wrist, had been wedged in all along the crest of the ileum, between the uterus and pelvis. At first I was quite at a loss to decide what this could be, but, hoping that it might be due to a faecal accumulation, I administered an enema, which, however, while it produced a copious evacuation, failed to effect any alteration in the size, shape, or position of this remarkable swelling. I now ruptured the membranes, and, passing two fingers into the vagina, found that the head presented. The occiput rested on the pubes, and the forehead being lower was pressed firmly against the cervix posteriorly, which, in its turn, was wedged against the mass I have described. I could not by this examination make out anything more than I have already stated; the lower segment of the uterus being firmly wedged in between

* “Smellie’s Midwifery,” edited by A. H. M’Clintock, M.D., vol. ii., p. 107.

the pubes and the swelling prevented my doing so. I now came to the conclusion that I had to deal with an ovarian tumour which, probably—the pelvis being large—had descended partially below the brim during the early stages of pregnancy—at a time, however, when the uterus was too large to permit of its descending lower, and that the tumour had become fixed in that position by the pressure of the uterus as it increased in size. I could not suppose that it had got into its present position at a late period of utero-gestation. I arrived at the conclusion that it was an ovarian tumour mainly because any other explanation of the formation of so large and firm a mass in the situation I have described would have given rise to symptoms which were altogether wanting in this case. Hæmatocele or cellulitis might possibly have produced a somewhat similar swelling; but had it been due to either of these causes, symptoms indicative of such serious affections must have been present. Such, however, were altogether wanting.

Having arrived at the conclusion that I had to deal with an impacted ovarian tumour, I lost no time in endeavouring to dislodge it. With this intention I placed the patient in the elbow-knee position, and introduced two fingers into the vagina and made steady pressure upwards on the tumour; but the lady, though very patient, could not bear the pain thus caused, and I was obliged to desist; and the pelvis being roomy, and there being no urgent symptoms present, I determined to wait and see what Nature could effect. I accordingly allowed four hours to elapse, at the end of which time, no advance whatever having been made, the pulse having risen from 80 to 100, and the patient complaining of being much exhausted, I determined to interfere. I explained the nature of the case to the friends, and pointed out that if I failed to push the tumour up out of its present position the case would assume a serious aspect.

I now brought the patient under the influence of chloroform—pushing it to the surgical degree—and then introduced my whole hand into the vagina and made firm pressure on the tumour, and soon had the gratification of finding it slowly to glide upwards and disappear. The head now came down on the os, which, though not fully dilated, was soft and yielding. I therefore thought it best not to leave the patient long undelivered, and, without withdrawing my hand, applied the long forceps, and easily extracted a living child.

For two or three days subsequently I felt much anxiety about this patient; her temperature rose to 103° , pulse 120; she also had a rigor and much tympany—evidently she had a slight attack of peritonitis; but these symptoms gradually subsided, and she made a perfect recovery.

The tumour is now easily felt in the abdomen. It lies in the left inguinal region, and is apparently the size of the foetal head at full term. The patient is still under my observation, and will, I fear, before very long, experience inconvenience from the presence of this tumour, for my experience of ovarian cysts which exist coincident with pregnancy is, that they increase rapidly after the pressure caused by the pregnant uterus is withdrawn.

Dr. SMYLY read the following Clinical Report of the Rotunda Hospitals :—

Report and Clinical Records of the Rotunda Hospitals for the Year ending 5th November, 1878. By LOMBE ATTHILL, M.D., Master of, and WILLIAM J. SMYLY, M.D., Assistant-Physician to, the Hospitals.

The total number of patients delivered in the various departments of the Hospital during the year ending 5th November, 1878, is as follows :—

Delivered in Lying-in Hospital	1179
„ „ Extern Maternity	860
Admitted into Auxiliary Hospital	397

Of the 1179 patients delivered in the Lying-in Hospital 446 were primiparæ. The number of cases in which the ovum was expelled before the seventh month of pregnancy amounted to 63. The other cases which deviated from the natural course were as follows :—

- In 13 the child was expelled, face towards the pubes.
- „ 1 the face presented.
- „ 40 the breech or lower extremity.
- „ 2 the shoulder or arm.
- „ 86 the forceps was applied.
- „ 6 were delivered by version.
- „ 2 the head was perforated.
- „ 1 the foetus was decapitated.
- „ 3 premature labour was induced.

- 21 were cases of twins.
- 6 " " of prolapse of funis.
- 4 " " of accidental hæmorrhage.
- 1 was a case of placenta prævia.
- 30 were cases of *post-partum* hæmorrhage.
- 1 was a case of secondary hæmorrhage.
- 1 " " of rupture of uterus.
- 5 were cases of convulsions.
- 3 " " of mania.
- 9 " " of rigid os.
- 11 " " of retained placenta.

The Forceps.

Eighty-three women were delivered with the forceps—that is about one in fourteen—of whom three died. The instrument was, however, applied in eighty-six cases, but in three it was subsequently removed—once because the cervix was so rigid that, after it was applied and locked, it was not considered safe to employ traction. This woman (see Case III.) was subsequently delivered by the natural efforts, and made a good recovery. The other two were breech cases, in which it was applied to the after-coming head, but failing to complete delivery, this was finally accomplished in one by the unaided finger—in the other by the perforator and cephalotribe.

The instrument which we almost invariably use is Barnes's long double-curved forceps. Tarnier's was used on two occasions, and the short forceps three times, but merely for teaching purposes. The objections to the former were fully stated in the last Report, and need not be recapitulated. It was, however, a curious fact that in both instances in which it was employed this year, the child was extracted face to pubes; it did not, therefore, apparently facilitate in any way the rotation of the face towards the sacrum.

The forceps was applied ten times where the os uteri was not fully dilated. In one case, as already mentioned, it was removed again without employing traction; in another case the cervix was ruptured, and peritonitis supervened. This was the only death among them. The following are some of the more interesting forceps cases:—

Tedious Labour ; Rigid Os ; Forceps.

CASE I.—E. C., aged twenty-three, was admitted into hospital at 3 A.M., on May 11th, having been about twenty hours in labour. The membranes had ruptured the previous day, and the patient seemed much exhausted from protracted efforts at "bearing down." The os was about half dilated, and very rigid ; a large scalp tumour could be felt on the foetal head ; the vagina was hot and dry. Warm baths, chloral, and opium were tried repeatedly during the day. At 10 P.M., the patient having been chloroformed, the forceps was applied ; os three-fourths dilated. The cervix offered considerable resistance, and some blood flowed with the first efforts at traction. A small thrombus formed at the posterior fourchette as the head was coming down upon the perinæum, which was incised laterally to avoid the danger of laceration. The child was still-born. Convalescence was uninterrupted, and the patient went out on the eighth day.

Forceps ; Peritonitis ; Death.

CASE II.—A. D., aged twenty-six, unmarried. Labour commenced on May 15th ; the waters were discharged the same day. Came into hospital on the 16th, having been twelve hours in labour. The os was found to be the size of a shilling and very rigid. All the ordinary means of relaxing it were employed, but with very little effect. At midnight on the 17th (third day since escape of liquor amnii) the os was about the size of a florin, still very rigid ; the vagina hot ; tongue coated ; pulse rapid ; and the patient in great distress of mind. Chloroform was administered, and she was kept under its influence for twelve hours. At noon the following day (18th) the forceps was applied and locked. No traction was applied for half an hour afterwards, as it was hoped the eccentric pressure of the blades would expand the cervix sufficiently for the passage of the head. In fifteen minutes more it was drawn through the os, and was soon delivered without further difficulty. The entire time which elapsed from the application of the instrument until the birth of the child was fifty-five minutes. The child was born alive and lived for thirty-six hours afterwards.

19th.—7 P.M. Patient has suddenly become deeply jaundiced ; groaning, and complaining of general distress, but no pain ; respiration rapid ; lochia suppressed ; no milk. The perinæal laceration, which extends half way to the anus, is destitute of

granulations and covered with a white membrane ; the edges red and œdematous, and the discharge thin and irritating, excoriating the inner side of the thighs ; labia œdematous. 10 P.M. Vomiting green matter ; semi-comatose, with retention of urine.

20th.—Comatose ; breathing quieter ; pulse 110.

21st.—Profuse black vomiting, several pints of fluid being ejected. Coma very profound, with stertorous breathing. Death (third day).

Autopsy.—Arborescent injection of the peritoneum, with deposit of recent lymph. The cervix uteri presented on either side a vertical laceration—that on the left extending into the vagina, and involving the peritoneum to the extent of about half an inch. Diphtheritic membrane on internal surface of uterus ; vagina gangrenous ; adhesion of left pleura.

Forceps Removed after Adjustment.

CASE III.—T. O'N., aged nineteen, a primipara. Labour commenced about 4 A.M. on June 8th ; she did not, however, come into hospital until noon the next day.

9th.—On admission the os was found to be about the size of a sixpenny bit, and the head could be felt through it, the waters having previously escaped. Her pains were apparently very severe, but had not much effect on the os, which felt hard and rigid ; she passed a very restless night in spite of an anodyne draught.

10th.—Os was about the size of a florin, still hard and undilatable. The day and night were spent very much as those preceding had been.

On the morning of the 11th, very little progress having been made, chloroform was administered and the forceps adjusted and locked, but so firmly and rigidly did the cervix surround the blades that it was not thought safe to employ traction, and they were accordingly removed ; chloroform was withdrawn. The patient was again placed in a warm bath, the water of which was injected into the vagina. After a time matters assumed a more favourable aspect ; the cervix softened and began to dilate. About 6 P.M. it was retracted over the head, and the child was shortly afterwards expelled alive by the natural efforts.

Face Presentation ; Barnes's Forceps.

CASE IV.—This patient was sent into hospital from the country, an unsuccessful attempt having previously been made to

deliver the child with short forceps. On admission the patient seemed very nervous and alarmed about her condition ; her pulse was 104, tongue thickly coated, vagina hot, labia œdematous ; child's face presenting in the first position ; the os could no longer be felt. Barnes's forceps was applied and the child extracted alive without difficulty. The mother made a good recovery.

Arm Presentation ; Decapitation.

CASE V.—E. F. This girl, aged nineteen, was in labour with her first child ; she showed many signs of syphilis, and stated that she was about six months pregnant, but feared the child was dead, as she had not felt its movements for several days.

Labour set in about noon on the 9th day of December, and she came into hospital the same evening. On examination the os was found about the size of a sixpenny-piece, and the presenting part was diagnosed as an elbow. At 11.30 P.M., the os being pretty well dilated, an arm prolapsed, which proved to be the left, in an advanced state of decomposition. The fœtus being evidently very small and putrid, labour was allowed to proceed in the hope that it might be spontaneously expelled ; this did not occur, however, but the presenting part was gradually forced lower in the pelvis, until at length it became firmly impacted ; the pains began to get weaker, and the pulse increased in frequency. It was now considered necessary to complete delivery ; and chloroform having been administered, an attempt was made to turn, but this could not be accomplished. The child was then decapitated by the aid of scissors and a blunt hook. The neck having been cut through, the body was immediately delivered by traction on the arm, and the head extracted with a crochet. Patient went out well on the eighth day.

Version.

Version was performed six times—three times where the upper extremity presented, once where the funis prolapsed, once for placenta prævia, and once to deliver the second of twins.

Induction of Premature Labour.

It was considered advisable to induce premature labour in three cases of extreme narrowing of the conjugate diameter of the pelvis.

CASE I.—M. R., aged thirty, admitted to the hospital April 30th, 1878. This patient was sent up from the country to have labour induced. She had been married five years, and had already borne two children. Both were still-born—the first, being immature, was delivered by the natural efforts; the second, by the perforator and crotchet. She was at the time of her admission in the eighth month of her third pregnancy; a low-sized woman, but in good health. In order to facilitate a thorough exploration of the pelvis she was brought under the influence of chloroform. It was then found that the sacral promontory bulged forward so as to encroach on the pelvic space to a degree which was considered incompatible with the birth of a fully-developed fœtus.

May 1st.—A gum-elastic catheter was introduced through the os, and pushed upwards between the uterine wall and the membranes; in doing this, however, the latter were unfortunately ruptured, and a quantity of liquor amnii escaped.

2nd.—Patient passed a quiet night; no sign of uterine action; two pieces of laminaria introduced.

4th.—Matters being still *in statu quo*, an attempt was made to introduce one of Barnes's bags, but unsuccessfully; a sponge tent was introduced instead. Pains set in about 8 o'clock P.M., and continued during the night.

5th.—Tongue coated; pains strong; os rigid; got a warm bath. Towards afternoon vomiting set in, with great pain in the abdomen; the discharge became yellow and offensive.

6th.—Had passed a quiet night; slept well after taking an anodyne draught; the os was still as small as a sixpence, and rigid: was again placed in a warm bath. Whilst in the bath had a very severe rigor. Being removed to bed, she was given chloral and opium; the os relaxed and rapidly dilated, and at 2.15 o'clock P.M. the child was born. It was a female, 5 lbs. 12 ozs. in weight, dead and putrid. An hour having elapsed, and all efforts to express the afterbirth failing, the hand was introduced, and it was found adherent to the uterus. When removed it was found in a state of commencing decomposition. The uterus was then thoroughly syringed out with a solution of permanganate of potash in hot water (110° F.). In the evening the abdomen was hard and tympanitic, but neither painful nor tender; pulse 120, temperature 103 $\frac{3}{4}$ °.

7th.—First day after delivery; had a good night. Towards evening the abdomen became painful and tender; tongue very

foul; pulse 130, temperature 104° ; discharge dark in colour and very offensive. Uterus to be syringed twice a day with carbolic acid, and to take quin. sulph. gr. v. ter die.

8th.—Bowels were freely moved; tongue cleaner at the edge; icteric tint of skin and conjunctiva; pulse 116, temperature 102° . 1 P.M.—Has had slight rigors all day; resp. 52; dyspnœa; pulse 140, temperature $105^{\circ}8$. Quinine doubled—*i.e.*, gr. x.

9th.—Pulse 140, temperature $103^{\circ}8$ in the evening (had fallen to normal in the morning); resp. 48, laboured; face flushed; looks anxious, but says she is not so, and feels well. Quinine increased to 15 gr.

10th.—Became maniacal and very noisy. Thornton's ice cap seemed to have a very calming influence. 9 P.M.—Pulse very small and soft, 30; passing under her.

11th.—Diarrhœa ceased; lying in a kind of dozing state; pulse 100, temperature 105° , resp. 60. Does not recognise any one.

12th.—Died at noon, but regained her consciousness before death.

CASE II.—(Recorded by Mr. SCATTERGOOD, Clinical Clerk.)—J. G., aged thirty-one, admitted 13th May. The patient had been married four years and borne two children—the first three, and the second two years ago. Both children arrived at maturity and were delivered with the perforator and crotchet. When admitted she was nearly eight months gone in her third pregnancy. After a careful examination of the pelvis it was determined to induce labour prematurely, and with this object Dr. Atthill passed a gum-elastic male catheter into the uterus and up to the fundus, between the membranes and the uterine wall, leaving the former unruptured. About 6 P.M. pains set in and continued all the night.

20th.—The catheter was removed at noon, and a sea-tangle tent introduced in its place; the membranes soon after ruptured, and the waters came away. 10 P.M. the tent was removed; os large enough to admit the top of the index finger. She spent a very restless night, being anxious and nervous, with a rapid pulse (148) and severe headache.

21st.—At the morning visit the os was still about the size of a sixpenny-piece; pulse 148. She was placed in a hot bath, where she had not remained many minutes before strong pains set in, and she had hardly got into bed again before the child was

born. It was a female, and alive. Mother and child both did well.

CASE III.—M. K., aged thirty-four, admitted September 11th. This patient came into the institution on purpose to have labour induced prematurely; she was at the time in the eighth month of her ninth pregnancy. Seven times previously the fœtus had been destroyed. Once only did she give birth to a living child, labour having set in prematurely about the seventh month; it survived its birth, however, but a few hours. On examination, narrowing of the conjugate diameter was detected, and it was determined to induce labour as in the former cases. Accordingly a catheter was introduced on the 12th instant, but as very little uterine action followed, it was removed after forty-eight hours, and the membranes ruptured. Next day os dilated gradually, though pains were weak, and at 10 P.M. it was considered advisable to deliver. The long forceps was applied, and the child, a living female, was extracted, but with a deep spoon-shaped depression towards the anterior margin of the right parietal bone. Mother and child went out well.

Placenta Prævia; Version; Craniotomy; Death of Mother.

CASE I.—M. K., aged thirty-four; sixth pregnancy. A week before admission she had a severe attack of hæmorrhage, lasting about two hours: the blood was both fluid and in clots.

August 10th.—Hæmorrhage recommenced about six in the morning and continued until 5.30 P.M., when she was admitted into hospital. On examination the os was discovered as large as a florin and almost entirely covered by the placenta. This was separated from the cervical zone of the uterus, and the membranes ruptured. After this not only did the hæmorrhage entirely cease, but labour also was arrested, and for three days things remained *in statu quo*.

On the 13th the discharge was most offensive, the pulse rose to 130, and temperature to 104°. Barnes's bags were introduced, and the os sufficiently dilated to deliver. This was attempted by version, but after the birth of the body and arms, the head could not be brought through the brim. The forceps was tried, but failed; and the child being evidently lifeless, the head was perforated behind the ear, and crushed with the cephalotribe. There was some hæmorrhage during extraction, but none afterwards; the pulse was very weak throughout. Afterwards she was given

beef tea and brandy freely ; morphia, injected hypodermically, gave her a quiet night's rest ; pulse 115.

14th.—Towards evening vomiting set in, but was checked by morphia, after which she slept.

15th.—Vomiting set in again ; pulse rapid and weak ; discharge very offensive ; died at 11 P.M.

Post-Partum Hæmorrhage.

There were thirty cases of *post-partum* hæmorrhage, some of which were of an alarming nature. The use of hot water in the treatment of this complication was very frequently employed both in the hospital and extern maternity, and has proved eminently satisfactory. It has, indeed, much to recommend it, for not only is it a powerful hæmostatic and excitant of uterine contraction, but it is also a general stimulant. If used with ordinary care it is not only harmless, but beneficial, by thoroughly cleansing the uterus from clots, portions of membrane, &c., which may have been left in its cavity ; and, what is a matter of great importance, it is always at hand when wanted. It will not, we are of opinion, be found altogether to displace the use either of cold water or of the perchloride of iron, but rather to be applicable to a distinct class of cases, in which the former of these remedies would be unsuitable and the latter unnecessary.

Dr. Atthill was first induced to try the use of hot water in the treatment of uterine hæmorrhage, in the earlier part of the time embraced in this Report, in consequence of a letter written by Dr. Whitwell, of San Francisco, to Dr. Foley, of Boston, who was at the time studying in this hospital. Dr. Whitwell's statement was to the following effect :*—When House-Surgeon to the New York State Woman's Hospital, in the year 1874, he found the uterus contract firmly and instantly upon being washed out with hot water, after an operation by Dr. Marion Sims upon a sarcomatous growth of the fundus uteri. The result led him to try the same treatment in *post-partum* hæmorrhage, where he met with perfect success. He afterwards succeeded in having the treatment tried in the Lying-in Hospital at Prague, where he studied for some time. At first he was ridiculed, but as the method was successful in every respect, it was adopted as a regular routine treatment.

* Reported already by Dr. Atthill.

The method of carrying out the practice is exceedingly simple. An ordinary syphon-syringe is the only instrument required, though we now use one with a long vulcanite nozzle specially constructed for vaginal and intra-uterine injection. This is carried up to the fundus, and, with the usual precautions against injecting air, and securing a free return, we inject water as hot as can be conveniently borne by the hand—*i.e.*, about 112° F.—in a full stream into the cavity, continuing thus until a good contraction is secured, and the water returns quite clear and colourless.

The following are some of the results of our experience in the use of hot water :—

1st. In cases of sudden and violent hæmorrhage in a strong and plethoric woman it is better first to use cold.

2nd. Where from the prolonged or injudicious use of cold, the patient is found shivering and depressed, the beneficial effect of injecting hot water is rapid and remarkable.

3rd. In nervous, depressed, and anæmic women, hot water may at once be injected, without previously using cold.

4th. In cases of abortion, where from uterine inertia the ovum, although separated from the uterine wall, is wholly or in part retained, the injection of hot water is generally followed by most satisfactory results.

5th. Where the injection of the perchloride of iron is considered necessary, previous injection of hot water clears the uterus of clots, &c., permitting the fluid to come directly in contact with the bleeding surface, and lessening the chance of septic absorption.

The following cases will illustrate its effects :—

CASE I.—E. D., aged twenty-four. Labour was tedious, and completed finally with forceps; afterwards there was some sharp *post-partum* hæmorrhage, which was temporarily arrested by cold and ergot. The uterine contraction was not, however, satisfactory, and more or less draining continued for some time after delivery. Hot water was at length injected, and was followed by firm and permanent contraction.

*Uterine Fibroids; Post-Partum Hæmorrhage; Hot Water
Injected.*

CASE II.—S. S., aged twenty-nine; primipara. Labour was very tedious, owing to inefficient uterine action—delivery being at last effected by the forceps. The uterus was then found to be thickly studded with fibroid tumours, most of which seemed to be

subperitoneal. The womb did not contract satisfactorily; and, rather severe hæmorrhage occurring, the placenta was immediately expressed, cold napkins applied to the vulva and sacrum, and friction employed over the fundus to induce contraction of the uterus. These means were not, however, sufficient; and, hæmorrhage still continuing, it was determined to try the value of hot water without first having recourse to cold. It was accordingly injected in a full stream, and with the most satisfactory result.

Prolonged Use of Cold Water; Successful Injection of Hot Water.

CASE III.—M. H., aged twenty-seven; fifth confinement. This patient had had hæmorrhage after former labours. On this occasion the process proceeded naturally and rapidly until after the birth of the infant; but some hæmorrhage preceded the expulsion of the placenta, which was accompanied by a quantity of blood and clots. The flooding now became considerable. The pupil in charge of the case summoned the assistant physician, and in the meantime tried to check the hæmorrhage with cold water, which he not only injected into the vagina and uterus, but also poured from a height upon the abdomen. The patient was found at about four o'clock on a raw spring morning with her bed and linen saturated with cold water, depressed and shivering, with blanched face, and small, feeble, and rapid pulse—135 per min. A small stream of blood was still flowing from the vulva; the uterus being relaxed and distended, a quantity of clots were expelled by friction and pressure, and hot water immediately injected. There was no more hæmorrhage, and when the bed-linen had been changed and a hot jar applied to her feet, the patient expressed the greatest satisfaction; her pulse had fallen to 115. She had subsequently an attack of pleurisy with effusion, but finally made a complete recovery.

The following illustrates the use of hot water in cases of abortion:—

CASE IV.—B. D. was attended at her own home. The fœtus came away on January 4th, and was apparently of four months' growth; the placenta was retained, and there was considerable hæmorrhage. She came into hospital two days after, and on examination the os was found patulous, and the placenta could be felt through it; all attempts to remove it with the finger, however, failed. There was still a profuse discharge, and the patient

appeared weak and anæmic. Hot water was injected, with the effect of immediately stopping the hæmorrhage, uterine action set in, and the placenta was expelled five hours after.

*Severe Post-Partum Hæmorrhage; Failure of Hot Water;
Injection of Liquor Fer. Perchlor.; Recovery.*

CASE V.—M. M., aged thirty; second pregnancy. In this case the breech presented, and the funis prolapsed with the escape of the waters; as no pulsation could be felt in it, labour was allowed to proceed, a putrid female child being finally expelled by the natural efforts. The placenta came away in twenty minutes, and the uterus being firmly contracted, the binder was adjusted. Two hours after delivery violent hæmorrhage set in; cold napkins were applied to the vulva, friction to the fundus, and ergot injected hypodermically; cold water injected into the uterus, which failing, hot water was injected, and spt. terebinth. ʒss. given by the mouth. As the womb, however, still continued flaccid, the hand was introduced and a quantity of clots removed; at length the uterus contracted, expelling the hand. This favourable result was, however, only of temporary duration, for it again relaxed, and hæmorrhage recurred as briskly as ever. The patient was now becoming weak and faint, with a pulse of 185 beats a minute. It was now determined to inject the perchloride of iron. The hand having been again introduced to remove any clots which might have formed in the cavity of the uterus, it was thoroughly washed out with hot water, and about eight ounces of the styptic solution slowly injected. Hæmorrhage immediately ceased, and the patient made an excellent recovery.

*Post-Partum Hæmorrhage; Injection of Perchloride of Iron;
Death of Patient.*

CASE VI.—M. H., aged twenty-three. This woman, who was married to a soldier, had been for some time in bad health attending the out-patient department, but previous to admission into the hospital was so ill that she was unable to leave her bed. When first seen she was very feeble and anæmic, and presented many well-marked symptoms of tertiary syphilis, which disease she said she had acquired two years previously; she also stated that this was her second pregnancy, having previously given birth to an immature and putrid foetus, and that she feared this child was also dead, as she had not felt its movements for about three

weeks. On examination she was found to be already in the second stage of labour, the head presenting. Shortly afterwards the child was born, dead and putrid as predicted. About twenty minutes after this, the placenta not having come away, the pupil in attendance sent for assistance. The uterus was found enormously distended, almost filling the abdomen. On pressure being made, a quantity of blood and clots were expelled with the placenta; cold water was injected into the uterus, but failing to cause contraction it was immediately followed by hot. Ergot and sulphuric ether were at the same time injected hypodermically, after which the womb contracted firmly, but the general symptoms were very alarming—the pulse could not be felt at the wrist, the patient became very restless, endeavouring to sit up, crying out that she would smother, that all was dark around her, she could see nothing. The foot of the bed was immediately raised, and the pillow taken from under her head. At this critical juncture the uterus again relaxed and hæmorrhage recurred. The solution of perchloride of iron was procured, but before it could be injected a violent convulsion came on. The case now appeared to be desperate; nevertheless, as a *dernier ressort*, the styptic was resorted to. The tube of a syringe was passed up to the fundus, and about six ounces of the fluid injected. The uterus did not contract; respiration immediately ceased, and she was dead. About forty-five minutes elapsed between the birth of the child and the death of the mother.

Autopsy.—There was general thrombosis throughout the entire venous system; none of the solution had, however, entered the fallopian tubes or the peritoneal cavity.

Puerperal Eclampsia.

There were five cases of convulsions, in two of which the attacks did not come on until after delivery, the patients in both cases recovering; the other three are recorded below.

CASE I.—(Reported by Dr. J. C. CAMERON, Montreal.)—F. D., aged nineteen, admitted into the lying-in ward at 2.45 P.M. on Tuesday, November 20th, 1877. On admission she was quite unconscious, in violent clonic spasms, face flushed, pupils widely dilated; pulse 130, resp. 30, temperature $101^{\circ}4$; the os was about two-thirds dilated, the head presenting in the first position and well down in the cavity.

Previous History.—She had always enjoyed excellent health;

had never noticed any puffing of the face or of the upper or lower extremities. She has been married for fifteen months, and has had one abortion at the third month. Labour commenced at about 11 P.M. on Monday, the 19th; the next morning, shortly after 7 o'clock, she complained of dizziness and inability to see objects in the room, and became quite unconscious, and at 7.30 the first convulsion came on. She was seen by one of the pupils of the hospital at 10.30, and was then in her fourth convulsion and perfectly unconscious; the os was at that time dilated to about the size of a sixpence. She now passed rapidly from one convulsion into another till she was brought to hospital.

Treatment and History.—The administration of chloroform was begun at 3 P.M., the patient being in a severe tonic spasm. After a few deep inspirations the rigidity began to relax, and in a few minutes she was completely under the influence of chloroform. Contraction of the voluntary muscles did not return as long as she remained under chloroform, but at intervals of every four or five minutes until after the extraction of the child a peculiar gasp or sneeze, or rather a succession of sneezes occurred; these ceased as soon as the child was delivered. At 3.20 a catheter was passed, but no urine was found in the bladder. The forceps was then applied, and at 3.40 she was delivered of a living female child. During extraction the pulse rose to 160, and became very feeble; but immediately after the birth of the child it fell to 110 and improved in volume. A hypodermic injection of ergot was administered when the head was distending the perinæum, and at 3.50 the placenta came away. Chloroform was stopped, and in ten minutes a convulsion occurred. Chloroform was re-administered immediately, gr. x. of chloral injected hypodermically. On admission ol. tig. gt. i and calomel gr. v. had been placed on the tongue, but without effect; half an hour after delivery a turpentine enema produced a free evacuation. Convulsions returned at 4.18, 4.26, 4.45, 5.15, and spasms at longer intervals until 8 P.M., when the last, which was a very slight one, occurred. After this she became somewhat restless, and moaned and tossed about. As she could now be made to swallow, a mixture containing potassium brom. and chloral hyd. ãã gr. x. in each dose was ordered to be given every half hour until she had taken a drachm of each salt. At 10.30 about one ounce of urine was drawn off by a catheter; on examination this was found to contain about half its bulk of albumen, and a small number of hyaline casts, some

of them containing granular matter. Neither granular nor epithelial casts nor epithelium could be found. At 10.45 two drops of croton oil were administered, and during the night she had several copious, watery evacuations. A hot linseed and mustard poultice was applied to the loins, and renewed at intervals.

21st.—At 10.30 A.M. she seemed for the first time to notice objects, and answered correctly in monosyllables when questioned, and thenceforth her faculties seemed gradually to brighten. She made a good convalescence.

Child.—The child when born was very puny and feeble, and very great difficulty was experienced in establishing respiration. Every expedient usually resorted to was faithfully and perseveringly employed, and at the end of two hours an occasional slight gasp was the only sign of life. Artificial respiration was kept up for nearly five hours before natural respiration was fairly established. The child lived about twenty hours, and died on its way back to hospital from the church where it had been taken to be christened.

CASE II.—(Also reported by Dr. CAMERON.)—C. M'G., aged nineteen, primipara, unmarried, probably a prostitute, was admitted into hospital about 11.30 A.M. on 3rd December, 1878, apparently suffering from extreme intoxication. A strong ethereal odour was very evident on her breath; her face was flushed and bloated. She behaved in a very violent, abusive manner, and was with difficulty undressed and put to bed. She was partially sensible, and answered questions about herself when she pleased. Her friends having said nothing about her having had convulsions, and the most natural conclusion being that she was drunk, an emetic and a dose of ol. tig. were administered, both of which acted satisfactorily. She was then allowed to remain quiet, and was disturbed as little as possible.

History.—She is a powerful, well-developed, stout, short-necked girl, of rather a bloated appearance. Has never borne children. Judging from her own appearance and from that of her relatives, she must have been addicted to the use of liquor. Her friends, when questioned afterwards, stated that labour began about 6 A.M., that she had a fit at that time, and another in the cab on her way to hospital. Nothing could be elicited from them as to her general health, or as to the existence of œdema, &c., before labour began.

On examination the os was found to be the size of a shilling ; the membranes had ruptured previously. At 1.45 P.M. a severe convulsion came on. She passed rapidly from clonic to tonic spasms, became perfectly livid, and the peculiar hissing respiration so characteristic in these cases was specially well marked. The administration of chloroform was at once begun ; the respiration became less and less hissing, but at the same time more rapid and shallow ; the lividity extended from the face to the neck, breasts, and upper extremities ; the pulse became quite imperceptible, and respiration ceased suddenly, three minutes after the inhalation of chloroform had commenced. Artificial respiration was immediately begun. Nélaton's method was used, and breathing was partially restored ; venesection also was performed ; but in spite of every effort the breathing gradually ceased, the heart became inaudible, the pupils dilated, and she was gone. As soon as it was evident that life was extinct, an incision was made in the middle line, the uterus opened up, and the child extracted without delay ; the placenta was attached in front. In spite of every effort to establish respiration, the child, which was a full-sized healthy-looking male, never breathed, although after a ligature had been applied the cord feebly pulsated for some minutes.

Shortly before death about an ounce of urine had been drawn from the mother's bladder, and upon examination it was found to contain rather more than half its bulk of albumen, a few granular casts, a large number of blood and large hyaline casts, with granular matter imbedded in them.

Mortality during Clinical Year.

Fifteen cases terminated fatally—that is, 1 in 78·6, equal to about 1·2 per cent.—in six of which there were evidences of septic absorption.

The deaths, classified as in former Reports, stand thus :—

CLASS I.—Deaths directly traceable to the nature of the labour, six cases.

CLASS II.—Deaths resulting from or supervening on diseases contracted before admission into hospital, four cases.

CLASS III.—Deaths occurring in patients suffering from mental distress, three cases.

CLASS IV.—Deaths not traceable to any predisposing cause, two cases.

Table of Deaths from all Causes.

No.	Date of Delivery	Date of Death	Ward	Bed	Age	No. of Pregnancy	Cause.	Observations.
1	1877 Nov. 13	Nov. 15	1	5	30	1	Phthisis . . .	Innupta; fretting; exhausted from excessive sickness during pregnancy; in advanced stage of phthisis.
2	Dec. 3	Dec. 3	8	84	19	—	Convulsions . .	Alcoholism; advanced Bright's disease.
3	1878 Feb. 2	Feb. 2	1	1	22	—	Post-part. hemorrhage	Much reduced by accidental hemorrhage previous to coming into hospital.
4	Jan. 28	" 6	6	66	27	1	Septicemia . .	Fretting.
5	Feb. 7	" 17	6	68	25	—	" . . .	In bad health for a long time; ten days confined to bed before admission, during which time had scarcely tasted food.
6	Mar. 5	Mar. 5	7	59	25	—	Post-part. hemorrhage	Syphilitic. In very bad health; had not left her bed for some days previous.
7	April 26	April 28	2	19	32	—	Pulmonary embolism .	Chronic alcoholism; uncontrollable vomiting.
8	" 24	May 2	8	85	30	—	Septicemia . .	Extensive laceration of perineum; some post-part. hemorrhage.
9	" 28	" 8	3	25	30	1	" . . .	—
10	May 6	" 12	2 back	11	30	—	" . . .	Induction of premature labour.
11	" 19	" 21	1	2	26	1	Peritonitis . .	Innupta. Os rigid; labour very tedious; forceps; laceration of cervix.
12	" 13	" 26	5	47	19	1	Pneumonia . .	Innupta; fretting; suffering from bronchitis when admitted; catarrhal pneumonia supervened on sixth day; no abdominal or other symptoms.
13	Aug. 14	Aug. 15	2 back	11	34	—	Collapse . . .	Placenta prævia; version; craniotomy.
14	" 28	Sept. 7	5	48	26	—	Septicemia . .	Admitted threatening abortion; plugged; ovum removed entire; septic symptoms supervened.
15	Oct. 16	Oct. 19	5	47	34	—	Bronchitis . .	Admitted with extensive pulmonary disease.

CLASS I.

Deaths directly traceable to the nature of the Labour.

CASE I.—C. M., aged nineteen, unmarried, first pregnancy; was admitted on 3rd December in a state of intoxication, having had two attacks of puerperal convulsions. She died undelivered, during an eclamptic seizure, not long after coming into hospital. The child was immediately extracted by Cæsarian section, but did not survive (see p. 114).

CASE II.—E. P., aged twenty-two; on admission she was in a very debilitated and exhausted condition from loss of blood; profuse hæmorrhage had set in with labour. She was advised to come into hospital, which she did, driving five miles into town, while profuse flooding continued all the way. She was delivered shortly after admission, severe *post-partum* hæmorrhage following the birth of the child; perchloride of iron was injected with good effect. The patient, however, rapidly sank and died.

CASE III.—M. H., a married woman, aged twenty-three; her second pregnancy; was in a wretched condition when admitted, having been confined to bed for days previously; was delivered of a putrid fœtus; profuse *post-partum* hæmorrhage followed; perchloride of iron injected. Death of patient (see p. 111).

CASE IV.—M. R., aged thirty; labour induced with difficulty, six days being occupied by the process; membranes were accidentally ruptured early in the process; the fœtus died, and was in a state of commencing putrefaction when born; placenta adherent. Died of septicæmia on the sixth day (see p. 105).

CASE V.—A. D., aged twenty-six, unmarried, first confinement; labour very tedious; os rigid; chloroform for twelve hours; forceps applied. Death on third day (see p. 102).

CASE VI.—M. K., aged thirty-four; sixth confinement; admitted August 10th. Partial placenta prævia; the membranes were ruptured, and placenta separated from the cervical zone of the uterus. Third day after, fever having supervened, Barnes's bags were introduced; child turned; great difficulty in extracting the head, which was finally perforated. Death followed in thirty-six hours.

CLASS II.

Deaths resulting from or supervening on Diseases contracted before admission into Hospital.

CASE I.—C. W., innupta, aged thirty, first confinement. On admission into hospital she was found to be in an advanced stage

of pulmonary phthisis, and was evidently in a most desponding state of mind. She stated that her strength had been greatly reduced by constant vomiting during pregnancy, and this continued after delivery even to the hour of her death. Her labour occupied $14\frac{1}{2}$ hours, during $5\frac{1}{2}$ of which she was in the second stage. Labour was completed by the forceps—a male child, weighing 5 lbs., being extracted without difficulty. She survived 48 hours, during which time she suffered greatly from cough, dyspnœa, and constant vomiting. An hour before her death she suddenly became cyanotic, with a contracted pupil, passed into a state of profound coma, which ended in death. Autopsy revealed the ordinary appearances of pulmonary consumption in an advanced stage. The mitral valve of the heart was diseased and contracted, there was subacute gastritis, and an amyloid condition of the liver and kidneys. Nothing abnormal in connection with the uterus or its appendages.

CASE II.—M. J., aged twenty-five, admitted Feb. 7th. Had been in very bad health for some time, and for preceding ten days was unable to leave her bed, and scarcely tasted food. Labour was natural, lasting $7\frac{1}{2}$ hours. On the third day she complained of feeling “pains in all her bones.” Temperature 104° . On the fifth day she became maniacal, regained her reason the following day, but she lapsed into a low typhoid state, and died on the tenth day.

CASE III.—M. F., aged thirty-two; had been drinking previous to admission on April 26th. Her face was flushed; tongue thickly coated; constant vomiting, which continued 24 hours after delivery. Labour natural; child stillborn. On the afternoon of the second day she was suddenly seized with intense dyspnœa; respiration 35 in the minute; orthopnœa, cough, and bloody expectoration; pupils contracted; pulse very rapid, uncountable. Death very soon followed. *Cause of death: probably pulmonary embolism.*

CASE IV.—J. S., aged thirty-eight; admitted 10th October, suffering from acute bronchitis; delivered of a premature (seven months) child on the 16th, after which the chest symptoms became greatly aggravated, and she died on the third day. *Cause of death: bronchitis.*

CLASS III.

Deaths occurring in Patients suffering from Mental Distress.

CASE I.—M. B., aged twenty-seven, primipara; delivered Jan.

28th ; labour natural ; was evidently in a state of great mental depression, constantly weeping. Though we could not discover anything of her history, we suspected that she was not married, since no one came to see her. On the third day she had a rigor, and her temperature rose to 104° ; the lochia were suppressed, and no milk was secreted ; the abdomen was tympanitic ; septic symptoms gradually developed ; the lungs became extensively engaged, and she died Feb. 6th (tenth day).

Autopsy.—A large gangrenous patch, the size of a two-shilling piece, was found on the vaginal wall ; the interior of the uterus showed in places patches of the so-called diphtheritic membrane ; ovaries contained numerous collections of pus. *Cause of death : septicæmia.*

CASE II.—B. K., admitted April 24th ; delivered same day ; labour natural, excepting a severe laceration of perinæum ; *post-partum* hæmorrhage followed, checked by the use of hot water. After delivery we found that she was fretting greatly about domestic affairs. On the 28th she had a severe rigor ; temperature rose to 104° ; very little milk or lochial discharge, but there were no abdominal symptoms. She fell into a low typhoid condition, and died 2nd May.

CASE III.—M. M., aged nineteen, first confinement ; the child was delivered with short forceps, labour being delayed by inertia in the second stage. This poor girl was unmarried, seduced, fretting greatly. She conceived the greatest hatred to her infant, which had to be removed lest she might destroy it. At the time of her admission she was suffering from acute bronchitis, which became much worse after delivery. On the sixth day the temperature rose to 105° , and the pulse to 128, with symptoms of catarrhal pneumonia, and she died. *Cause of death : pneumonia.*

CLASS IV.

Deaths not tracable to any Predisposing Cause.

CASE I.—M. S., admitted April 27th, aged thirty ; first confinement ; delivered naturally April 28th. On the third day face became flushed, with icteric hue of the whole body, and nervous depression. Next day there was some tenderness over the uterus, with tympany. May 6th.—Had a very restless night, continually rambling ; breathing difficult and rapid ; unable to expectorate ; fæces and urine passing involuntarily ; delirium. Fell into a low state, and died May 8th.

Autopsy.—An ulcer about the size of a sixpence was found just inside the cervix, and a portion of placenta attached to fundus ; abdomen otherwise normal ; chest not examined.

CASE II.—M. D., aged twenty-five, married ; admitted August 28th, with symptoms threatening abortion, having reached the third month of her fourth pregnancy, and was in a very anæmic condition from loss of blood. The vagina was plugged soon after her admission, and when the tampon was removed the ovum came away entire. Septicæmia, however, supervened, and she died on the ninth day. *Cause of death : septicæmia.*

The Extern Maternity.

The total number of poor women attended at their own homes during the year amounted to 860—a number unequalled in any former year. The abnormalities met with were as follows :—

- 85 cases of abortion.
- 2 „ of face presentation.
- 25 „ of breech, or lower extremity.
- 5 „ of hand, or upper extremity.
- 1 case of accidental hæmorrhage.
- 2 cases of placenta prævia.
- 19 „ of *post-partum* hæmorrhage.
- 4 „ of adherent placenta.
- 7 „ of twins.
- 4 „ of prolapse of funis.
- 1 case of convulsions.
- 1 „ of labial thrombus.

Thirty-two were *forceps* cases, in three of which the os was not fully dilated.

Version was performed eight times—viz., five times for presentation of upper extremity, once for placenta prævia, once for prolapse of funis, and once for deformed pelvis.

Hot water was injected sixteen times in cases of *post-partum* hæmorrhage and of abortion.

The perchloride of iron was twice had recourse to.

Deaths.

Seven deaths were recorded—viz., two from phthisis pulmonalis, one from pyæmia, three from septicæmia, one from hæmorrhage.

Dr. CHURCHILL said the Report contained a good many cases that were not quite satisfactory. There were three cases in

which the forceps was applied when the os was undilated, or not fully dilated; and one case in which it was applied where the woman had been in labour for apparently a whole day, and the os must have been larger than a florin, but the cervix was so rigid that the instrument was withdrawn, and the woman was afterwards delivered on her own account. He would like to know why the forceps was applied at all in those cases. In the second case in which the instrument was applied Dr. Smyly had omitted to say why it was done, but the application was followed by rupture of the cervix and death. Why was the instrument applied when the os was in such a state that rupture of the cervix followed? The os could not have been dilatable.

Dr. M'CLINTOCK said that of the 1179 patients who had been delivered in the hospital, 446 were primiparæ, and this circumstance alone was a most important factor in raising the rate of mortality. During Dr. Collins' Mastership of the Rotunda Hospital the proportion of primiparæ was $30\frac{1}{2}$ per cent., and in his (Dr. M'Clintock's) Mastership the proportion was 37 per cent. Now, in Dr. Atthill's time they found that the proportion was so high as 38 per cent. The Report mentioned the number of unmarried patients who had been confined in the hospital during the past year. It was well known that the rate of their mortality was far higher than that of married women. During his Mastership he ascertained that 127 seduced women had been delivered in the hospital, of whom 31 died, which was over 25 per cent. He did not think the rate of mortality given in the Report was at all high for a large hospital in a great city to which many bad cases were attracted, and where the proportion of primiparæ and of seduced females was so very large. The conclusion derived from a considerable collection of data in private practice amongst the better classes was that one death in 100 was about the average general mortality, and if that were so, 1 death in 78 or 80 was not high for an hospital. After the publication of a Paper on this subject, read before the British Medical Association at Bath last August, he received a communication from Dr. Jamison, of Edinburgh, stating that during a practice of seven years, chiefly amongst the working classes, but not dispensary patients, he had 17 deaths out of 1364 deliveries, which was exactly 1 death in 80. With respect to the extern cases attended from the Rotunda Hospital, it was a pity that the number of primiparæ amongst them had not been recorded. In 32 out of 860 extern cases the

forceps had been used, being 1 case in 26, as against 1 case in 14 in the hospital. A record of the causes for resorting to the forceps in those cases would have been interesting. Amongst the patients treated at their own homes there were 7 deaths out of 860, which was exactly 1 in 123.

Dr. MACAN said that the only statistics in connection with hot-water injections for *post-partum* hæmorrhage were those of Dr. Schroeder, of Berlin, who said that the hot water treatment along with subcutaneous injections of ergot superseded all others. The hot water counteracted shivering, and revived a sense of heat within, and it should be used as hot as could be borne. With respect to statistics of labour, the only fair principle of recording them was by saying that so many were attended and so many died. It only led to confusion to say that one died of bronchitis and another came into the hospital in a low state of health. Private practitioners were in the habit of excluding all the cases they could in which particular diseases supervened. There were four cases in the Report which must be excluded from the mortality of childbirth. He did not believe in the truth of returns coming from certain French and London institutions which claimed a less rate of mortality for cases attended by students and midwives than for those attended by skilful practitioners.

Dr. ATTHILL, in reply to Dr. M'Clintock's friendly criticism, had only to say they were obliged to avoid making the Reports too voluminous. With respect to Dr. Churchill's comments on the use of the forceps before the os was fully dilated, in one case the woman had been thirty-seven hours in labour, of which twenty had passed before her admission into hospital, while the membranes had ruptured twelve hours before the use of the instrument. In another case the woman had been forty hours in labour before the instrument was applied, and died subsequently, and it was a mere question as to whether they would apply the forceps or allow her to die undelivered. They choose the former alternative, and the child was born alive, but lived only thirty-six hours. That was one of the most anxious cases he ever had, and if it was not legitimate to apply the forceps in it he hardly knew a case in which that instrument should be applied at all. In the third case in which he used the instrument the woman was a primipara, and had been during the three preceding days in labour. He must say his experience of the use of hot-water injections in *post-partum*

hæmorrhage was most favourable. Undoubtedly, it was not absolutely certain, and did not do away with the injections of styptics into the uterus; still he believed it was safe and in most cases efficient, and that it would gain ground every day. More especially it was invaluable in cases of abortion; the results of his experience of its uses in such cases were most favourable. In twenty-five cases in which he used it, it was most efficient. Amongst the list of deaths was one somewhat remarkable case of a woman who died of septicæmia after abortion. It was the first case of the kind he recollected in his practice. The forceps were used twice as often in the Lying-in Hospital as in the Extern Maternity. The great majority of the extern cases were women who had had one or more children. Out of 1200 women who had been delivered in the hospital, he did not think more than 150 or 200 came back to them. No doubt a considerable number were deterred from coming into the hospital, because they did not like to leave their children at home. Last year the external mortality was relatively greater than that within the hospital.

Dr. KIDD said he had been struck by the large number of cases of *post-partum* hæmorrhage that were mentioned in the Paper. It seemed to him that some were described as cases of *post-partum* hæmorrhage that in other hands would not have been so considered. As to hot-water injections, their success in so large a number of cases was a fair proof of their value. He had had some little experience of the use of hot water in cases of *post-partum* hæmorrhage, and had found it attended, on the whole, with very good effects. He had, however, also seen it fail. In one case in his private practice, which Dr. Athill saw with him, both hot water and perchloride of iron failed, and he lost his patient. Hot-water injection was most useful where the patient was cold, collapsed, and exhausted. Patients in that condition had told him that it was most comfortable. For many years, long before hot water was used for *post-partum* hæmorrhage, he used cold water in cases of abortion when the membranes were retained after the embryo had escaped, and had found the effects good. He never used hot water under such circumstances. The *rationale* he presumed was that the cold water caused the uterus to contract; but even in a case of abortion, if the patient were exhausted, collapsed, and cold, in his opinion hot water might be used. On the other hand, if the patient were warm, her pulse good, and no great signs of

depression existing, he was inclined to think that cold water would answer the purpose better. Certainly injections of water, either hot or cold, into the uterus were the most efficacious method of procuring expulsion of the placenta and membranes after abortion. It was a pity they had no means of defining what was *post-partum* hæmorrhage.

Dr. SMYLY said he might say for himself and his colleague, Dr. Duke, that they did their best to make the Master's book perfectly accurate. Every two or three months Dr. Atthill went over the book, and carefully compared it with the bed records. Mistakes and omissions occasionally occurred. With respect to the record of the External Maternity, it could not be perfectly reliable. The more careful the clinical-clerk was in making the record, the higher the mortality was. One reason why the forceps was less frequently used in External Maternity than in the hospital was that the external cases were let to run on sometimes to a very injudicious extent. With respect to hot-water injections, the general opinion appeared to be that they acted by contracting the uterus, but his own opinion was that the action was styptic. He admitted that he found a difficulty in distinguishing the cases of *post-partum* hæmorrhage from those which were not, and therefore he put down every case in which there was any hæmorrhage beyond the slightest amount.

The Society then adjourned for the Session.

Gynæcic Summary.

The Etiology of Puerperal Cystitis, by Schwarz, of Halle, a. S. (*Centralblatt für Gynäkologie*, No. 26, 1879). The author supports the view that cystitis in lying-in women is a disease which arises by infection. Injuries received during parturition cannot, any more than the mechanical irritation of the bladder and urethra by repeated introduction of the catheter during labour, set up cystitis. Retention of urine must also be rejected as a cause; for spontaneous decomposition of retained urine never occurs. The causes of puerperal cystitis, on the contrary, are—1. The introduction of phlogogenic material directly into the bladder by the catheter; and, 2. The spontaneous extension to the vesical

mucous membrane of inflammatory processes in its neighbourhood. A collection of thirty-two cases of this disease out of about 1100 lying-in women in the midwifery clinique at Halle, a. S., in the years 1868-75, shows that in by far the majority of cases the disease arose from the introduction of infective material directly into the bladder by the catheter. Among these twenty-two cases of puerperal cystitis (twenty of which were simple cystitis, and twelve complicated with pyelitis), only two arose from the extension of inflammation in the neighbourhood; the remaining thirty (in twenty-one quite certainly, in nine with the greatest probability), as a result of the introduction of phlogogenic material by the catheter. Therefore cystitis does not especially affect those lying-in women who have had difficult labours, nor those who suffer from inflammatory affections in the neighbourhood of the urethra and bladder; but such as have been catheterised. Antiseptic measures (especially the entrance of air into the bladder is to be avoided, to do which the catheter should be introduced into the bladder filled with carbolic solution), securely guard against the introduction of infective material. Since 1875, these precautions have been employed in the Halle midwifery clinique, and puerperal cystitis arising from catheterisation has become very rare. It must be mentioned, that the author accepts the view that the lochial secretion under entirely normal conditions may contain the injurious material.

The Complete Extirpation of the Cancerous Uterus by Freund's Method, is the subject of a communication by A. N. Solovieff, of Moscow, in the *Archives de Tocologie*, January, 1880. The patient was aged forty-three, and had had four children. She had been suffering from pain, with hæmorrhage and fœtid discharge for eight months. To vaginal examination the cervix uteri seemed healthy, except that it was somewhat thickened; but after the os externum had been enlarged by incision, it was found that the interior of the neck and body of the uterus was covered with dense projecting excrescences. The operation was performed with the strictest antiseptic precautions. Its details are fully described, but cannot well be abbreviated. The patient died twenty-six hours afterwards. Death appeared to have taken place from shock, combined with septicæmia. The author considers that it is very difficult to draw a parallel between the extirpation of the cancerous uterus and ovariectomy; first, because

when the cancerous patients come under notice the disease has generally already made considerable progress, and the general health has seriously suffered. Added to this, there is the section of the peritonæum in two places, and the greater length of the incision required. But the great disadvantage of Freund's operation consists in the fact that the intestines have to be drawn out of the abdominal cavity, and retained there by the pressure of a cloth ; whereas in ovariectomy, on the contrary, the intestines generally remain within the abdomen. This is the explanation of the frequency of death from shock after Freund's operation. The following are the chief points in which the author thinks that the operation needs improvement :—1. It is necessary to find a mode of operating without drawing the intestines out of the abdomen. 2. The operation needs to be made as short as possible, that the intestines may not be chilled, and that the patient may not be longer under chloroform than can be helped. The author goes on to mention nine other points, all of which refer to operative details. He gives a table of all the cases which he knows of, in which the operation has been performed up to the present time. There are 47 cases, of which 12 recovered and 35 died. He thinks that these figures are enough to convince any sceptic of the legitimacy of the operation, and that the operation will in the future take a foremost place in surgery.

Prolapsus Uteri : Elytrorrhaphy after the Method of Lefort, was the subject of a communication to the Paris Société de Chirurgie, December 10th, 1879, by M. Panas. He remarked that this operation had now been performed three times, by Lefort, Rancarol, and Panas respectively. The case he brought before the Society was that of a woman, aged thirty-six, who had suffered from complete prolapsus for seven years, since the birth of her last child ; her perinæum had also been lacerated. She died from another disease more than two years after the operation, and during this time the cure was complete. The operation consists in uniting in the mesial line the anterior and posterior vaginal walls, so as to make two lateral vaginæ. The surfaces freshened were about six centimeters in length, by two in breadth, and the raw surfaces were kept in contact by twelve sutures, one above, five on each side, and one below. M. Panas thinks this operation better and easier than that of Sims. It is easy to denude the surfaces and to pass the sutures, because the parts, being prolapsed, are at,

or outside, the vulva. The anterior sutures are the last inserted. It is true that at the end of the long and narrow lateral vaginæ formed by the operation there is great difficulty in withdrawing the sutures. To meet this objection, M. Panas proposes to use catgut stitches, which, as they will be absorbed, the surgeon need not trouble himself to remove. Although the parts vivified are very close to the peritoneum, yet no evil result has followed in either of the three cases. The only inconvenience is the obliteration of the vagina, an inconvenience of which it is the bounden duty of the surgeon to previously inform the patient.—(*Progrès Medical*, Dec. 13th, 1879.)

Pædiatric Summary.

On the Employment, in certain cases, of a Caoutchouc Thread for the Ligature of the Umbilical Cord is the subject of a Paper by Dr. P. Budin, of Paris. He remarks that secondary hæmorrhage from the umbilical cord is rare. But in certain cases in which the cord is big, that is to say, contains in its thickness a great quantity of Wharton's jelly, even though the ligature has been pulled tight, we may see a severe, and even dangerous, hæmorrhage follow cries or efforts of the child. He has therefore made some experiments to test the efficiency of thread and caoutchouc ligatures. He found, first, that having put two ligatures, one of thread and one of caoutchouc, on the same cord, the next day a probe could be passed between the first-named ligature and the cord, but it was impossible to make it penetrate between the caoutchouc thread and the cord. Next, he tested the resisting power of the ligatures by injecting the vessels of cords which had been tied with the different materials in question. When a ligature of thread had been tied so tightly that great force was needed to make fluid injected into the umbilical vessels flow past it, yet, when the obstacle had once been overcome, a very slight pressure only was enough to make the fluid again pass the ligature. This was not so when caoutchouc was used; the same resistance was met with when the injection was repeated, as had been encountered when it was first made. With caoutchouc it is possible to tie so tightly that the resistance offered to the passage of fluid cannot possibly be overcome; the force employed pro-

ducing, instead, rupture of the vessel. He feared lest the caoutchouc ligature might divide the cord ; but he has not found this happen. On account of the readiness with which the caoutchouc ligature slips on the surface of the cord, it is not easy to apply it. To meet this difficulty, Dr. Tarnier has suggested an ingenious proceeding which he calls the "match method" (*"le procédé de l'allumette"*). At the point to which it is desired to apply the ligature, a wooden match is placed on the cord, parallel to its length. The ligature is then tightly tied, including within it both the cord and the match. When the knot is finished, the two ends of the match are seized, and by pressure on the point where the knot includes it, it is broken in half at that place, and the two pieces easily withdrawn. The caoutchouc ligature was the subject of a communication by Dr. Dickson to the Obstetrical Society of Edinburgh in 1874, but was not received with much favour.

PAMPHLETS RECEIVED.

"Die Castration des Weibes." Von Prof. Dr. Spiegelberg. (Reprint from the *Breslauer Aertzlichen Zeitschrift*.)

"A Case of Exanthematic Cirrhosis of the Ovary, resulting in Menstrual Epilepsy, and Cured. By Oophorectomy," by Lawson Tait, F.R.C.S. (Reprint from the *Birmingham Medical Review*.)

"On Port-Wine-Mark, and its Obliteration without Scar." Fourth edition. By Balmanno Squire, M.B. Lond., Surgeon to the British Hospital for Diseases of the Skin. London : J. & A. Churchill. Pp. 24.

Communications received from Dr. W. S. Playfair, Dr. W. L. Reid, Dr. Braxton Hicks, and Dr. Galabin.

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THE
OBSTETRICAL JOURNAL
OF
GREAT BRITAIN AND IRELAND.

No. LXXXV.—MARCH 15, 1880.

Original Communications.

ON INTRA-UTERINE MENSTRUAL COAGULA.

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I ADOPT this title to my Paper because, when long ago I was considering the subject, my attention was strongly attracted to that of Dr. Haddon* bearing the same. But the title is, for me, far from being faultless, for it implies that the clot is formed of menstrual blood, which may be the case, but is by no means necessarily so. There are two good reasons for adhering to it—namely, that it is not easy to find another equally brief, and that it implies a distinction, which I am sure ought to be carefully maintained, of such coagula from what I call puerperal coagula, or those formed during the continuance of the puerperal state.

The laws of the formation of puerperal coagula are different from those of the formation of menstrual. The former are produced while the uterus is still large and possesses a cavity larger than that of the virgin or ordinary healthy unimpregnated organ. While puerperal coagula are being formed the large uterus may be, and is very frequently, still farther spontaneously dilated. The same cannot be said of menstrual coagula, or can be said only in rare exceptional instances.

Menstrual coagula may be formed in the otherwise healthy virgin uterus or in the otherwise healthy uterus of the unimpregnated woman after the puerperal state has passed.

* *Edinburgh Medical Journal*, January, 1872. p. 611.

The cubical contents of the unimpregnated uterus have been made matter of careful study,* and on this subject it is necessary to make some remarks. The cavity of the cervix is rarely a mere potential cavity, being generally nearly replete with glassy mucus, in a mass of some thickness. The cavity of the body of the uterus is naturally more a potential cavity, like that of the peritoneum, than a real cavity. It is a cavity of two dimensions, length and breadth, while its thickness is little or none, there being separation of the anterior and posterior walls only by a thin layer of uterine mucus. But the cavity of the body of the uterus, like that of the peritoneum, may, by the introduction of contents, become a real cavity of three dimensions. When it is thus distended, without other alteration than arises from the change of relative position of its walls, it may contain a blood-clot of some size. This blood-clot may reach a bulk equal to nearly one-half a cubic inch, its shape being that of a flattened and somewhat triangular mass. The cavity of the body of the uterus may be regarded as more distensible during life than after death, and as also probably more distensible during menstruation than at other times.

That blood-clots not rarely occur in the otherwise healthy unimpregnated uterus there can be no doubt. Like many others, I have seen them in post-mortem examinations, and one is mentioned by Dr. West† as having been observed in a case where the loss of blood from the uterus was fatal from its quantity and long continuance. The clots which I have seen in autopsies have been soft. Such, during life, break down and are discharged as a brown fluid, or they may become harder and be expelled from the womb and from the vagina as dark-red clots. Regarding such menstrual clots, Scanzoni‡ expresses what is both true and the general professional opinion, when he says: "With close reference to the peculiarities of the blood effused into the uterine cavity, we cannot allow it to pass unnoticed, that we recollect no case in which in a young woman, still within the age of capability of conception, a considerably copious collection of blood has been shown to take place in the cavity of the otherwise quite healthy uterus. In the most exquisite cases, it was no more than a bloody layer

* See the chapter "On Some Points in Uterine Metrology," in my work, entitled "Researches in Obstetrics," p. 435.

† "Lectures on the Diseases of Women," fourth edition, p. 66.

‡ "Lehrbuch der Krankheiten der weiblichen Sexualorgane." IVte Auflage. Band i. S. 299.

loosely adhering to the internal surface, and placed with its long axis parallel to the long axis of the organ or a clot from 1—2''' thick, presenting the three-cornered form of the cavity, and that projected more or less deeply through the internal orifice into the cavity of the cervix. The characters of such were less distinct in the same degree as the death of the affected individual occurred at a more remote time from the last monthly period, so that no healthy uterus has come before us, in which fourteen days after last menstruation there was still to be found a trace of the bloody effusion that had taken place. We must, therefore, lay it down as a rule, certainly admitting only most rare exceptions, that blood effused through a healthy uterine cavity is always completely removed within the time of the next catamenial period, so that the clot produced in a former never can be enlarged by that of the next following period."

In this passage there are two important statements: first, that a menstrual clot never has been observed in the uterus by Scanzoni more than fourteen days after last menstruation, and that such clot is always removed not later than next menstruation; second, that a menstrual clot is never augmented by additions derived from successive periods.

Upon the second assertion of Scanzoni I make no comment. It is a corollary from the first, and I know of nothing tending to an opposite conclusion. Especially, I never saw or heard of a menstrual clot having different layers of different ages and corresponding degrees of decolorization.

Scanzoni does not even mention a decolorized menstrual clot. Such a clot I have seen; and the case affords an example, which is one of the rare exceptions to what I have called his first statement, regarding the shortness of residence of menstrual clots in the uterine cavity.

Miss K., aged thirty-three (1856), has long suffered from menorrhagia, and recently from a thin brownish discharge. Hymen entire. Hymeneal orifice very small. Hymen ruptured by examining finger which finds in the vagina a body which is removed. It was in close apposition to the cervix uteri. It is a rounded, scarcely triangular, blood-clot, having the area of about a shilling and about a line and a half in thickness. It is dark-coloured in the interior, and on the surface completely decolorized at parts. No other morbid condition was discovered. My impression, formed and noted at the time, after careful con-

sideration, was that it was a menstrual clot which had been expelled from the uterus; and I still adhere to that opinion. It is not inconceivable that a clot should form in the vagina and become decolorized; but it is improbable. I have almost no doubt that this was a simple menstrual clot formed within the uterus and decolorized while there. It had surely remained there during a whole menstrual interval and been discharged from the womb into the vagina at the next succeeding catamenial period. The evidence afforded by this case, while it meantime satisfies me, is not absolutely conclusive. At all events it was such a clot, in point of size, as might be accommodated in a virgin uterus without supposing dilatation more than might take place through mere change of form in the menstruating organ.*

An interesting example of menstrual clot is recorded by C. Rokitsky.† He regards the case as one of fibrinous polypus, but that is a manifest error, for it had no attachment to the uterus and had not the shape of a polypus. He further regards the case as settling in favour of Kiwisch the question on the subject of fibrinous polypus which Scanzoni had raised: and this it is far from doing, for Rokitsky's case affords no evidence that the woman was a virgin or had not been recently pregnant, although this may be fairly assumed; and I assume this in placing it here. But Rokitsky's case does not show any enlargement and dilatation of the body of the uterus, such as Kiwisch postulated and made the chief point of his hypothesis as to the formation of fibrinous polypi. To this subject I shall presently recur; and I now subjoin notes of Rokitsky's case.

Josepha Zobel, an unmarried woman, said she began to menstruate the day before she had an accident, which proved fatal in five days. She was struck on the head by a tile while on a ladder, and had a fall which injured her head and spine very severely. In the autopsy, the ovaries were found rather large, the left united to its tube, and considerable pseudo-membranes

* Olshausen's case is probably like the one narrated in the text. (See "Die Krankheiten der Ovarien," Stuttgart, 1877, S. 19). But there are not data justifying for it a place in any category. He describes it, *Hæmatoma Ovarii dextri nach Scorbut. Zugleich polypöses Hæmatom der Uterus, und Hæmatosalpinx lateris sinistri*.

† *Wochenblatt d. Zeitsch. der K. K. Ges. der Aerzte in Wien*, 1866, No. 21. This case is reported by Gusserow in the *Medic. Centralbl.* 1866; and it is necessary to warn the readers of the latter that the case is there given erroneously in important particulars. Winckel ("Pathology and Treatment of Childbed," Chadwick's transl., p. 161) appears inclined to adopt the erroneous view of Rokitsky as to the evidence afforded by this case against Scanzoni.

stretched from it to the posterior side of the broad ligament, and of the uterus as far as the bottom of the vesico-vaginal excavation. In its superficial layer posteriorly was a dark-brown coagulum enclosed by a quite thin greenish-yellowish striatum luteum. The right ovary set through with large peripheral follicles. The uterus, large, thick-walled, almost three and a half inches long; the body one and three quarter inches broad, and seven and a half lines thick. In the cavity of its body a three-cornered coagulum, ending above on both sides in a short thin thread running to the tubes, below prolonged into a considerable spindle-shaped mass. This last lies in the cervix which appears spherically dilated; it is at the same time somewhat looser than the upper part found in the cavity of the body of the uterus. Both, however, consist of a peripheral brown-reddish fibrin layer, felt-like on its outer surface. In the interior is found a loose dark-red clot, besides a little equally dark fluid blood. The mucous membrane of the uterus is somewhat loosened in its texture with a surface only perceptibly felted. The orificium externum is rounded, freely permeable, without cicatrix. In the vagina some bloody slime.

This case, then, is an example of a so-called menstrual clot occupying both the body and neck of the womb; but, so far as the details go, neither of these cavities was dilated and enlarged beyond what is implied in mere repletion. The clot was formed while the canal of the cervix was patent, and no flexion or other displacement of the uterus is noted as having been present.

In a Paper, published in the last Number of this Journal (for January), I have narrated cases that might, in a loose way of speaking, be said to present menstrual clots. But the soft clots of these cases appear to me to belong to a different category, and to demand separation and separate consideration from the subject of menstrual clots. They are cases of hæmorrhage, and the clots were present while the hæmorrhage was going on and while the cervix was widely open, and not at any other time, so far as is known. No doubt they might possibly have come to present true retained menstrual clots such as are described in this Paper; but their histories reveal no such occurrence as having actually taken place. Besides, in them, the uterine cavities were expanded to a greater extent than could be accounted for by mere change of form.

We come now to consider the question: Can the otherwise healthy virgin uterus, or the unimpregnated uterus at a remote

period from childbirth or abortion, be dilated by a menstrual clot beyond its ordinary dimensions when replete? In other words, do menstrual clots—say, of the size of a small hen's egg—occur, enclosed, in the otherwise healthy unimpregnated uterus? No one has, so far as I know, ever observed such a condition.

In a passage, which I quoted from Kiwisch in my former Paper in this Journal,* he expresses his belief that such an occurrence may perhaps take place. But it is to be remembered that he was trying to account for the formation of fibrinous polypus, and this at a time when little was known of that disease; and it is important to add that the difficulties experienced by Kiwisch have been overcome without adopting Kiwisch's hypothesis of dilatation of the body of the uterus. The theory, indeed, of fibrinous polypus is now, on the whole, satisfactorily made out.

Commenting upon Kiwisch, Scanzoni† not only says that there is no history of the occurrence of such dilatation of a healthy unimpregnated uterus by a clot, but adds his belief that the notion is untenable.

For myself, I have no hesitation in meantime expressing my opinion that dilatation of the otherwise healthy unimpregnated uterus, so as to enclose and retain a large clot, is an occurrence not highly improbable. For this opinion I have three reasons: first, the histories of cases of dilatation with hæmorrhage such as I have narrated in the last Number of this Journal; second, the fact that the puerperal uterus, or uterus that has been recently pregnant, is capable of such dilatation; and, third, the almost certain occurrence of dilatation of the otherwise healthy unimpregnated uterus without the formation and retention of a clot within it. For the solution of the question whether Scanzoni's opinion or mine is right, we must await the arbitrament of pathological facts. The case of Rokitansky, as already reported, does not settle it.

I know that several authors, in systematic works, do, in a casual way, speak of such retention of clots as Scanzoni declares to be incredible, but I do not refer to them specially. No cases or other relative facts are given by these authors in support of the assertions; and it is plain, on perusing the remarks referred to, that they are made without due and full consideration of the important points involved in the question we are considering.

* See Number for January, p. 5.

† Ibid., p. 6.

The cases of menstrual coagula recorded by Dr. Haddon* would be sufficient evidence in proof of the opinion which I hold, did they belong to the kind of cases under discussion in this Paper. In both of his cases the clot-mass was as large as a small hen's egg. One was from a woman, aged twenty-eight, supposed to be a virgin, but who had missed a monthly period. The other was from a breeding woman, who had also missed a period. In both the clots contained a cyst, having a smooth-lining membrane, and containing clear serum. These facts, recorded regarding them, make it plain that they do not come into the same category with the cases discussed in this Paper.

The great enlargement of the cavity of the body of the virgin or unimpregnated uterus when diseased is well known ; and clots may form within it and be retained, and become more or less decolorized. The disease may be inflammatory, or cancerous, or it may be a mucous polypus, or a fibroid in any situation. Of such clots the case of Schulhof,† commented on by Graily Hewitt, is an example.

It is a general belief that the cavity of the body of the uterus may be largely dilated in consequence of stenosis of the internal or external os uteri, or of obstruction produced by flexion ;‡ but of this I am not convinced. If one could dare, in such a difficult and complicated question, to trust implicitly to a logical argument apparently sound, the question is settled by such personal experience as I have had. For I have frequently seen dilatation without stenosis ; and all the most marked cases of stenosis which I have seen have been without accompanying dilatation. I have not seen dilatation for which there was no explanation but stenosis ; nor have I read of such.

As an argument in favour of the probable occasional occurrence of a considerable clot with dilatation of an otherwise healthy unimpregnated uterus, I have adduced the almost certain occurrence of dilatation without the enclosure and retention of a clot within it ; and I conclude this Paper by adducing an example that appeared in St. Bartholomew's Hospital.

F. C., aged forty. Married twenty-one years. Has had no advanced pregnancy, but five miscarriages, of which the last was at the third month, and four years ago. The catamenia began at

* *Edinburgh Medical Journal*, vol. xvii. p. 611.

† "Transactions of the Pathological Society of London," vol. xv. p. 169.

‡ See Graily Hewitt on "Diseases of Women," third edition, p. 330.

fifteen, and have always been regular, profuse and painful ; the pain commencing one or two days before the period, and decreasing as the flow became established. The pain is of a bearing-down character, with occasional shooting pangs. For the last four months she has not menstruated, but has had a copious white discharge. She complains of pain in the left iliac region, which has lasted for two years. Has been wearing a pessary for two years, and has undergone treatment for ulceration of the womb.

When she came into the hospital, her morbid condition was as follows :—Vaginal discharge slight ; white, not offensive. Uterus slightly descended, feels bulky, slightly retroverted and flected. Bearing down does not increase the displacement. Cervix large and patulous. Surface of cervix healthy. Mucus of cervix glassy. Probe easily enters uterus three inches, elicits no tenderness, gives the examiner the feeling of a considerable cavity of three dimensions. Uterus freely mobile. A tangle tent introduced into cervix. Ergot to be taken by the mouth.

On the next day it was found that the tent of two and a half inches in length had slipped high into the uterus. It was extracted with difficulty, and a larger and longer introduced.

On the following day the uterus, pulled down by volsella, was examined internally by the finger. Nothing was discovered except the dilated cavity of the body, easily admitting the finger for thorough investigation.

After this, for four days, hæmorrhage was considerable and then gradually ceased. During these four days she had, by a mistake of the clerk, easily accounted for, taken each day an ounce of the liquid extract of ergot.

Seven days after the dilatation, the womb measured two and three quarter inches, and no morbid condition, in situation, shape, or other respects could be found. Left iliac pain gone.

In this case a condition of endometritis might be suspected. But the absence of tenderness, and the absence of discharge, serous or bloody, seem to negative the supposition. The rapid cure, also, by tent and ergot do not favour it. As there was no kind of obstruction of the canal of the cervix, I can assert no distinctly morbid condition but the dilated cavity of the body of the uterus. Several gentlemen of experience saw the case, and suggested no difference of opinion from that here expressed.

Cases of this kind with hæmorrhage, or flooding, in women who have borne children, are not rare. But in such, the blood

is not long retained as a clot, and the whole condition is temporary. While such cases are known in the woman who has borne children, they are, I believe, little known in the virgin. The two cases I recorded in the last Number of this Journal were not only in virgins, but also had such dilatation of the womb as is excessively rare in uteri apart from the conditions of recent childbearing or abortion.

APPENDIX

to a Paper in the January Number of this Journal, entitled,

“ON SPONTANEOUS DILATATION OF THE VIRGIN UTERUS, WITH HÆMORRHAGE.”

By Dr. J. MATTHEWS DUNCAN.

THE Paper referred to was a description of cases where there was hæmorrhage, with clotting of blood in the uterus ; soft or recent clots, as distinguished from old or retained clots, such as are described in the Paper on “Menstrual Coagula” in this Number. Since that Paper appeared in January, I have met with an interesting case of Dr. Whitehead's, to which it is necessary to make reference. It closely resembled mine, and is to be found in the *London Medical Gazette* for 1846, p. 549. The case was one of simple menorrhagia in a girl aged seventeen, which proved fatal. The clot found in it indicates with nearly certainty dilatation of the whole uterus much above the natural dimensions of its cavities ; for the clot was globose, or of considerable thickness. The “clot, from its lower extremity, which terminated at the os tinæ, to the part situated at the fundus uteri, measured two inches and a quarter ; and between its two horns, one inch and three quarters.” To this description I can, through the kindness of Dr. Whitehead, add the following particulars :—The clot was globose on all sides, including that corresponding to the fundus uteri, and it had no ridge, or sulcus forming an edge. Its thickness was not specially measured, but was about one half inch. Small fibrinous prolongations from the clot corresponded to the Fallopian tubes.

CASE OF INTRA-UTERINE HYDROCEPHALUS AND RUPTURE OF THE UTERUS, WITH REMARKS.

By J. HALLIDAY CROOM, M.B., M.R.C.P.E.

Physician to the Royal Maternity Hospital, Lecturer on Midwifery and Diseases of Women, School of Medicine, Edinburgh.

INTRA-UTERINE hydrocephalus and rupture of the uterus, whether separately or as complications, the one or the other, are sufficiently rare to warrant a record of such cases when they occur. On that account I venture to report the following case:—

A primipara, aged twenty-five, at full term fell into labour on the morning of December 20th, 1879, at 5 A.M. A midwife was sent for, who attended until 3 P.M. the same afternoon. During this time the pains were regular, and of gradually increasing strength. The midwife, who was an unqualified woman, made no local examination of the patient, but, as the pains were strong, the labour apparently making no progress, she sent for Dr. M.

He saw the case about 6 P.M., and found the patient having strong pains. The os uteri was dilated to the size of the rim of a tea-cup, very thin and tense. The membranes were ruptured. Between the pains a soft, doughy mass was felt presenting; during a pain the mass became firm and tense. As Dr. M. did not recognise the nature of the presentation, he very properly placed the patient under chloroform, and, after some digital dilatation of the os, he introduced his fingers well within the cervix and thus made out the scalp, enormously distended with fluid, and felt the bones floating free in a fluid medium. He, unfortunately, did not make any abdominal examination of the patient.

Having thus ascertained the case to be one of intra-uterine hydrocephalus he allowed the patient to come out of the chloroform, and then, leaving the case in charge of the midwife, he went home for his forceps.

In the meantime the patient's pains returned, and after several of considerable, though not unusual severity, they suddenly ceased. On Dr. M.'s return, in less than three quarters of an hour, he found the patient groaning as in suffering, but without any actual labour pain. He found the os dilated sufficient to allow easy introduction of the hand, and very thin. Having again anæsthetized the patient he proceeded at once to apply the

forceps. This was done ; but, after several attempts at traction without success, he abandoned his efforts, and was good enough to ask me to see the woman with him. I saw her about 9 P.M., and then one could not fail to be struck with the condition of the patient. She was lying across the bed, tossing her hands and keeping up a continuous moan. Her face was blanched and covered with a clammy sweat. She was vomiting. Her skin was cold and her pulse 140. She was evidently collapsed. Immediate delivery was imperative. I introduced my hand, and found the hydrocephalic head unengaged at the brim, lying transversely, face to the left. Bi-manually the head felt enormous. The cervix had slipped over the broadest part of the head. I could not feel the junction of body and cervix. Owing, however, to the urgent call for delivery, I did not delay to make any very careful abdominal examination, but proceeded at once to tap with an ordinary Keith trocar, and drew off about two pints of fluid. The head completely collapsed, and, with slight help from the forceps, was readily delivered. Considerable difficulty occurred in the birth of the shoulders, which, contrary to my expectations, felt large and engaged with difficulty in what I now felt to be a narrow brim.

The child, which was dead, was a large, healthy, fully-developed male. Ergotin was freely administered hypodermically, and the uterus contracted fairly well. On introducing the hand to remove the placenta which was in the vagina, I discovered that the cervix and uterine body were severed anteriorly. The rent admitted three fingers. There was no intestine trapped in the wound. At the same time I found the diagonal conjugate measured three and a half inches. The hæmorrhage was inconsiderable, and the uterus remained well contracted. The patient sank in a few hours. No post-mortem could be obtained. The fœtus I showed to the Society some time ago.

The nature of the case was obvious, a primiparous woman with a 3-inch conjugate, fell into labour, complicated with intra-uterine hydrocephalus. The cervix thinned out over the non-engaging head, and, ultimately, after twelve hours of more or less severe pains, during which, from the conformation of the head and contraction of the pelvis, the cervix was stretched without a corresponding dilatation of the os, the anterior attachment of cervix and uterine body gave way. This accident apparently occurred during the time occupied by the doctor in going for his forceps. The

patient remained collapsed and undelivered for three hours, and when ultimately perforation and delivery were accomplished the patient was too weak to rally.

The connection between hydrocephalus and rupture of the uterus is well recognised, and the frequency of the complications has been carefully investigated by Dr. Keith in his graduation thesis. The question of the risks and treatment of intra-uterine hydrocephalus, as well as the mechanism of rupture of the uterus as a complication, has already been so recently discussed in a lengthy essay by the President, that I would not presume to detain you by any general remarks on the subject. Perhaps I may be allowed to make one or two remarks pertinent to the case in point. As regards, first, the diagnosis. This was easy, but had the presentation been, as it often is in hydrocephalus, a breech, one means of diagnosis would unquestionably have been wanting—viz., the shrunken and shrivelled condition of the body and limbs. In this case the trunk and extremities were plump and well nourished. At the same time, from the ease with which the large head was felt above the brim, it would have been, I think, easy enough to recognise the bulky after-coming head, had it been a breech case.

In regard to the diagnosis of rupture the only symptoms which pointed in that direction were the cessation of uterine pains and the patient's collapsed condition, but the other classical symptoms of rupture—if one might so term them—viz.,

Violent throes before rupture,

Peculiar pain at the time of rupture,

Hæmorrhage,

Retrocession of presenting part, &c.,

were wanting.

Although an early diagnosis of rupture of the uterus is very often an impossibility, for the simple reason that any very specially extraordinary symptoms are wanting, yet, at the same time, given a case of hydrocephalus as the present, with collapse and cessation of pains, the diagnosis of rupture, although not absolute, is all but certain. Perhaps the reason why some of the other distinctive symptoms of rupture were wanting was, that its seat was in the cervix and its extent comparatively limited. It is matter for regret that neither my friend nor I had an opportunity of noting the line of demarcation between the uterine body and the cervix through the abdominal wall. When I saw the patient, the

indication for delivery was so urgent that this could not carefully be done.

It is also to be noted that there was no hæmorrhage, as is usually the case in cervical rupture. This was, also, no doubt owing to the cervix being stretched high above the narrow brim, and the firm wedging of the head.

In respect of treatment, this case strongly points to the great necessity for early recognition of the condition and prompt interference. Had the undue stretching of the cervix been early relieved by puncture of the head, in all probability the accident would have been avoided.

With regard to the application of forceps, I am inclined to agree with those who condemn them, except in very minor degrees of hydrocephalus. Because, first, when the hydrocephalus is well established, as in the present case, it is not worth while attempting to save the child : for if the statistics of Weber are correct, out of sixty cases only six survived a year. Second, the application of forceps increases the risk to the mothers by increasing the tendency to rupture ; besides, the difficulty of avoiding the slipping of the instrument over the large, soft head is very great. Third, the application of the forceps while diminishing the bulk of the head in one direction causes it to increase in another, and therefore does not, as a rule, facilitate delivery.

ABORTION AND ITS TREATMENT:

WITH SPECIAL REGARD TO THE INJECTION OF WARM WATER.

By J. FLETCHER HORNE, F.R.C.S. Edin.

WARM-WATER therapeutics within the last two years have received considerable attention.

The use of warm water, locally applied as a medical agent, was brought to our notice by Dr. Whitwell, of San Francisco, in a letter to Dr. Lombe Atthill, of Dublin; but first used in midwifery by Dr. Emmett, of New York, as mentioned by Dr. Whitwell ; its use in surgery was recommended by Mr. Keatley, of the West London Hospital ; and the use of warm-water vaginal injections during labour with rigid os to cause rapid dilatation and completion of labour, by Dr. Kilner, of London.

By reading a short Paper by Dr. Atthill I was led to its use in abortion.

By the term abortion I imply the expulsion of the fœtus prior to the sixth month of pregnancy ; I use it as synonymous with the popular expression—miscarriage.

For the purpose of my Paper it will be sufficient to consider only the *fœtal-expulsive* treatment.

Abortions of early pregnancy seldom need special treatment. The hæmorrhage will usually be controlled by rest. Astringents may be tried if needful, or ergotine may be exhibited hypodermically.

In abortions of the eighth to the twelfth week we often have the ovum expelled with unbroken membranes ; if it be not, our aim must be to remove the ovum and its appendages, and thoroughly evacuate the uterus.

The uterine contractions suffice, in many instances, to burst the ovum and throw out the fœtus, and here the uterine action may cease ; the pains do not recur as we could wish, the womb continues quiescent, the os almost closed, and the placenta and secundines remain. After a variable interval, from a few hours to as many days, the uterus will probably attempt to rid itself of its contents—often successfully.

Should there be no return of the pains, I think it desirable that immediate removal should be attempted. If the finger can be introduced, and pressure made outside the abdomen, the whole of the cavity of the uterus should be thoroughly explored and evacuated. If the os is closed it should be plugged with a tent, or Dr. Aveling's vaginal tampon will be found useful. The placenta, if retained, will usually become the seat of putrefactive change, as the following case will show :—

Mrs. R., multipara, attended by midwife, who, having delivered a putrid fœtus and being unable to complete the removal of the placenta, asked me to see the patient. I carefully endeavoured by the finger to remove the soft, pulpy, rotten mass to the greatest extent possible. No hæmorrhage followed, but considerable pain. The fœtid discharge was kept down by Condyl's fluid injection, and I several times removed further pieces. The case dragged on a weary existence for many months, and when the patient left the district she was far from well.

I now think that where a portion of the placenta remains, and you cannot reach it with the index finger, the use of the warm water steps in in preference to the use of the ovum forceps.

The tent or tampon will dilate the os and stimulate the uterine efforts. After its removal you will be able to scoop out the ovum and its surroundings.

In these cases I have frequently given ergot in its various forms, and have almost always felt disappointment at the result. Its action on the unstriated muscular fibre of the uterus, so well marked when the organ is fully distended and the os fully dilated, is certainly not nearly so useful in the middle period of pregnancy. I find it produce tonic contraction of the os, and so act in a manner diametrically opposite to our desire. At the same time I would state, that I think it most desirable, after the whole of the contents of the uterus have been expelled, to stimulate the sympathetic system by the administration of ergot, so as to bring the arterial tree into a state of spasm, which closes the minute arteries and prevents secondary hæmorrhage.

It is a moot point whether absorption of the placenta occurs; if so, it explains the following case:—

Mrs. C. sent for me August 19th, 1879. Messenger said miscarriage. On arrival I found a fœtus of about twelve or fourteen weeks had come away. I carefully examined the clots, &c., for placenta. On vaginal examination found the small cord broken off almost in the closed os. On a little tension it again broke. There was no pain, no hæmorrhage; nothing further came away, and in a few days, on my last visit, I found the patient in her shop.

In using the warm water I use an ordinary hand-basin, containing about three or four pints of the water at a temperature of 110° or 112° . I would here strongly recommend any of my readers who would use this plan not to use their clinical thermometer; if so, they will find that they will not be able to again shake down the index. I find it a safe limit to use water sufficiently warm that you can hold your hand in it without any degree of discomfort. The basin is placed close to the nates, and one of Higginson's enemas, with vaginal tube attached, is carried up with the fingers through the os uteri; the water is then to be gradually injected until complete contraction follows—usually one or two pints suffice.

I append three cases of abortion in which I have used the warm water with complete success. In one case of post-partum hæmorrhage at term in which I used it, the warm water was not so successful.

CASE I.—Mrs. D., aged forty, sent for me on the night of

April 7th, 1878. I subsequently learnt that she had had nine children, and found that she had missed three menstrual periods, and ten days before had begun to be unwell; and this had continued without treatment till this afternoon, when a foetus of about the eighteenth week of pregnancy came away. This was followed by profuse hæmorrhage, which was succeeded by fainting and tossing of the arms about—symptoms so characteristic of the drain that had taken place. On my arrival I found her almost pulseless, blanched, the bed saturated with blood, vagina full of clots. By introducing the index finger through the partially dilated os uteri, and with external pressure, I got away a portion of the miniature placenta, but the hæmorrhage still continued. I then injected gradually about two pints of warm water, with the result of bringing into reach the rest of the placenta, and also producing immediate contraction of the uterus, my finger being expelled by the uterine action.

CASE II.—Mrs. B., a very delicate woman, aged about forty, pregnant of her seventh child, was delivered August 24th, 1879, at 7 P.M., of a foetus of about the fifth month, which apparently had been dead some time. The placenta came away by external pressure on the uterus. Three hours after, her attendants having tilted her up, violent hæmorrhage followed, which drained the woman almost to death's door. On my arrival I immediately injected warm water with success, the hæmorrhage ceasing immediately.

CASE III.—Mrs. W., aged thirty-eight, pregnant of her twelfth child, aborted October 15th, 1879. A foetus of about the third month came away about 2 P.M. At 9 P.M., on my seeing her, I found she had been losing all day, had fainted several times, was blanched and pulseless. On my injection of warm water collapse followed at once, and the patient turned over as if about to die, but immediately rallied. Contraction of the uterus ensuing almost immediately, a dose of ergot was given; slight discharge continued all night. Nourishing food and tonics were subsequently given, and the patient soon became convalescent.

Physiologically this treatment brings out the nervi-motor power—the reflex action being stimulated by the warm douching and by the impression upon the internal uterine surface, and perhaps upon the uterine muscular fibres. By the administration of ergot after the abortion is completed, the direct spinal action is also stimulated, and no further hæmorrhage takes place.

CASES ILLUSTRATING THE RELATION BETWEEN UTERINE AND OVARIAN PAIN AT THE MENSTRUAL PERIOD.

By G. ERNEST HERMAN, M.B. Lond.

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IN his Article on "Ovaritis" in the fifth volume of "Reynolds' System of Medicine," Dr. John Williams makes the following statement:—"In the single, chronic ovaritis is in the very great majority of cases associated with dysmenorrhœa. Menstruation—which may be regular or irregular—is from the first associated with pain. The pain is in the back and pelvis, and continues to return at or about the menstrual epochs, ceasing during the intervals, for several years. After a long period, a new and different pain is experienced; this is situated in the ovarian region and goes through to the back, and is due to ovaritis. What may be the exact relation between the dysmenorrhœa and the ovaritis is uncertain. It may be that the inflammation with which the inner surface of the uterus is affected in most of these cases extends along the fallopian tube until it ultimately reaches the ovary; or it may be that absorption of products of menstruation retained in the uterus takes place, and that the ovaritis is really septic in character. Whatever be the nature of it, the sequence of events mentioned is extremely common" (p. 844).

The symptom of *pain* is one from which it is extremely difficult to draw any satisfactory conclusion, because we have no means of objectively testing its presence, ascertaining its kind, or measuring its severity. We are entirely dependent for information about it upon the patient herself; and the account given by her will be clear or confused, exaggerated and highly-elaborated or otherwise, according to her temperament, her degree of mental capacity and education, and her truthfulness. These sources of error are so grave and so common, that I think no conclusion which is based on an account of pain given by one patient is worth anything. We are only on sure ground when we find that the same pain is described to us by *many* patients. If the accounts given by a large number agree, it is so improbable that they should all deviate from accuracy in the same direction, that we may safely take the

statements made as correctly representing the sensations felt. For this reason I should not attach any importance to the three following cases if they stood by themselves; but putting them beside the statements of Dr. John Williams, for which he doubtless has abundant clinical evidence, I think them worthy of attention.

In each of these cases the patient, in giving an account of what she felt, described two different kinds of pain: the one paroxysmal, and not localised in the ovarian region; the other, a constant aching, referred to the situation of the ovary, and relieved by rest. Each of them also stated that she had not suffered from the ovarian aching so long as from the paroxysmal pain; and in each of them the earlier pain was removed by an operation which enlarged the cervical canal. One of them also lost the ovarian pain, not directly, but after the paroxysmal pain had disappeared; but in the other two, the ovarian aching was not benefited.

The interpretation which (in the light of the quotation from Dr. Williams given above) these cases seem capable of bearing is, that the paroxysmal pain was uterine, and due to obstruction, and the aching pain ovarian, and a result of changes secondary to long-standing obstructive dysmenorrhœa.

But admitting the account of the pains to be free from error, it may properly be objected that it is not certain that the one pain was uterine, and the other ovarian. I do not assert that there is proof to that effect; but the fact that an operation which made one part of the cervical canal larger was followed by disappearance of one kind of pain, so far as it goes supports the view that the pain removed was uterine, and due to obstruction. I shall not at present discuss the question whether the pain which was not removed was really in the ovary; nor whether, assuming it to be ovarian, it originated from some accidentally (so to speak) superadded cause of disease, or was a direct and usual result of obstructive dysmenorrhœa.

For the present, therefore, I only advance these cases as evidence that the character of the menstrual pain does sometimes change in the manner that Dr. Williams has stated; and they afford presumptive evidence, from the effect of treatment, that the earlier pain was uterine, and due to obstruction.

Malformation of Vaginal Portion, with Stenosis of Os Externum ; Dysmenorrhœa ; Pain at First Uterine, then becoming also Ovarian ; Division of Vaginal Portion ; Relief to Uterine Pain, no Benefit to Ovarian Pain.

(Reported by Dr. S. D. CLIPPINGDALE, Resident Accoucheur.)

S. G., aged thirty, married ; admitted June 13th, 1877.

Family History.—Her mother first menstruated at eighteen, and continued to do so till past fifty ; she suffered from sick headaches. Her elder sister, aged thirty-three, is unmarried, and has suffered for twelve years from some affection of the womb, said to be neuralgia ; she is nervous and hysterical, and has great pain at the menstrual periods. Her other sister (younger than herself) is married, fertile, and healthy.

Personal History.—*General.*—She had some illness from the age of seventeen till she was twenty-one, the symptoms of which seem to have been those of some stomach affection ; she was in St. George's Hospital, where, as a part of the treatment, she was prohibited from taking solid food. She had had no other illness, except that as long as she could remember she had been subject to sick headaches. She had always disliked fat.

Special.—She first menstruated at sixteen, but the flow only appeared once in eight or nine months, until she was twenty-four. She then became regular every fourth week, the flow lasting seven days, but being scanty (two napkins sufficing for a whole period) and attended with slight pain in the lower part of the back, which was never severe enough to lay her up ; and with smarting in the breasts.

She was married at twenty-six, but never had any sign of pregnancy. Menstruation continued to be regular after marriage, but there was increase in the pain, and decrease in the quantity, one napkin only being required instead of two. The pain gradually got more severe and lasted longer ; it is now continuous from one menstrual period to another.

She describes the pain as being now of two kinds : the one a continuous aching pain in the left side (she points with her finger to a spot about two inches internal to the left anterior superior iliac spine as its seat), running also down the left leg, affecting the back and inner side of the thigh ; pain also in the right thigh, but not in the right iliac region. The other kind of pain is felt *in the hypogastrium*, and is not continuous, but

paroxysmal, the discharge generally following a paroxysm of pain. There is smarting in the breasts before the flow comes on. She has never to her knowledge passed clots or membranes. She has ever since her marriage had a whitish discharge before and after the menstrual flow, and occasionally in the interval. There is pain during micturition before and during the period. She always has to micturate frequently. There is much dyspareunia except during the week following menstruation; this has been present slightly throughout married life, but during the last two years has been severe. The patient's husband also stated that when she had sexual desire pain was produced whether intercourse took place or not.

Her general health was good, except as to the troubles connected with the generative organs.

On admission she was sparely built, but florid in complexion. The uterus was normal in position, and quite movable. Its body was rather large; the vaginal portion of the cervix was obtusely conical, more than half an inch long, the os externum circular, admitting no bougie larger than No. 6. The length of the uterine cavity was three inches. In every other respect the shape of the uterus was normal. Much pain was produced by moving the uterus, and on pressure, externally or per vaginam, over the situation of the left ovary.

There were no signs of disease in any other part of the body. She menstruated from June 7th to the 12th.

On June 14th the vaginal portion was divided bilaterally with Küchenmeister's scissors.

No elevation of temperature, or other bad symptom, followed. She menstruated in July, but found no improvement: the pain was as bad as ever.

She left the hospital on July 21st, 1877. On October 31st she stated that there was still no improvement as to the menstrual pain, and that the pain now continued during the week following the menstrual flow. But she stated that *the paroxysmal pain*, which she was formerly accustomed to feel in the hypogastric region, *was better*. On examination the os externum was found well open.

The imperfections in the account of the pain in this case arise from a cause which makes it the more valuable. At the time this patient was under care I had not carefully gone into the varieties of pain felt during menstruation. Therefore I did not

put to her any direct questions as to the relation, in point of time, between her different menstrual pains, or the alteration in them after the operation. Her statement as to this alteration was made quite spontaneously, without any suggestion from me, or, so far as I know, from any one else.

Anteflexion ; Stenosis of Os Externum ; Dysmenorrhœa, first Uterine, then also Ovarian ; Division of Vaginal Portion ; Relief to Uterine Dysmenorrhœa ; Subsequent Disappearance of Ovarian Pain.

(Reported by Dr. S. D. CLIPPINGDALE.)

H. H., aged thirty, married ; admitted Oct. 13th, 1877.

Family History.—Mother and seven brothers and sisters died from consumption. Has three sisters, two married and fertile ; only one (married) menstruates painfully. One sister suffers from sick headaches.

Previous Health.—General.—Has never been in want. From the age of ten till marriage was a barmaid ; since marriage has occasionally worked a boot-machine. Suffered from sick headaches as long as she can remember. Has never had any illness sufficient to lay her up, but frequently had to leave her employment on account of ill health, thought due to overwork. Appetite always good ; could eat fat. Bowels usually confined.

Special.—The catamenia appeared at the age of eleven ; she was regular every fourth week, the flow being copious, about four napkins per day being usually required, and lasting from seven to nine days. She never to her knowledge passed clots or membranes. Until her marriage menstruation was almost entirely free from pain.

She was married at seventeen, but has never had any signs of pregnancy. Menstruation has always been painful since. The pain usually begins on the first day of the flow, and lasts until the fourth, gradually disappearing. It is felt in the *lower part of the back* and in the *left iliac region* ; it *comes and goes*, each paroxysm lasting, she thinks, about five minutes. The pain has got gradually worse since she first began to feel it. Since marriage the catamenia have not been regular, the intervals varying from three to six weeks, and the flow has become diminished in quantity ; it now lasts only four days, so many as six napkins seldom being required in the whole period. Much dyspareunia ; this has been present for six or seven years, worse

lately. For about six years her appetite has fallen off; she has got somewhat thinner than before; has suffered from palpitation, and shortness of breath on exertion, and has become very "nervous."

She was a woman under the middle height, of slight build, bones small, joints large, teeth crowded; is not emaciated, but has evidently at one time been stouter, breasts large and pendulous; is not anæmic. Manner nervous and excitable.

There was pain on deep abdominal pressure over the region of the left ovary; no tenderness elsewhere. The uterus was movable, and there was pain on moving it. The cervix was conical, the os externum small and round, No. 6 bougie being the largest that would enter it. The body of the uterus was not enlarged, but bent forward so sharply that its axis seemed to form with that of the cervix an acute angle. Pain was produced by compressing the body of the uterus bimanually. Neither ovary could be felt per vaginam. She menstruated from Oct. 24th to the 27th rather more copiously than usual.

October 29th.—The vaginal portion was divided bilaterally with Küchenmeister's scissors, and nitrate of silver applied to the cut surfaces to prevent primary union.

No elevation of temperature, or other unfavourable symptom, followed the operation.

She menstruated from Nov. 19th to the 21st inclusive. The quantity was the same as usual, six napkins being required. The pain was much less than usual, and lasted only two hours; it was of *an aching character* and *did not come and go* as usual. She was questioned upon the difference in the kind of pain, and said that she had formerly had *both* the pains at her menstrual periods; but *she had suffered from the pain which came and went before she had any of the aching pain*. She left the hospital on Nov. 24th.

January 23rd, 1878.—States that she menstruated from Jan. 13th to the 17th inclusive, rather more profusely than usual. No pain except backache.

February 20th.—Says that she menstruated from Feb. 8th to 12th inclusive. Had backache, but no other pain. The flow was copious.

Uterine Dysmenorrhœa; Subsequently Ovaritis; Division of Vaginal Portion; Relief to Uterine but not to Ovarian Pain.

(Reported by Mr. F. J. POUND.)

M. S., aged forty, labourer's wife; admitted into the London Hospital, June 16th, 1879.

Family History.—Her mother, and all her relatives on mother's side who have died within her recollection, died from consumption.

Previous History.—General.—She had a serious illness when about seven years old, but has forgotten its nature. From the age of thirteen to that of eighteen was a servant, and during this time was perfectly well. Between eighteen and nineteen she had what was called "gastric fever;" was in bed three months, and has never had good health since; appetite has been bad, she has suffered from pain between the shoulders after food, flatulence and frequent vomiting. Has been subject to bilious headaches as long as she can recollect. She has never slept well, and has always been very "nervous."

Special.—She first menstruated at thirteen. The first time the flow was scanty, lasting only one day, and without pain, but she fainted. Then she saw nothing for six months, during which she at times suffered from great pain, sometimes being "drawn double" by it. This pain was like that which she subsequently became accustomed to feel at the menstrual period. At the end of the six months she again menstruated, and from this time continued to do so regularly (except during the "gastric fever") until her marriage. The flow used to last three days, about five napkins being required. During the first two days of the flow she would have very great pain, felt chiefly in the *lower part of the back*, extending round across the *lower part of the abdomen*, and down the inner part of the thighs; the pain was *relieved by walking about*. It never lasted after the flow had stopped. There was headache and vomiting at the menstrual periods. She married when aged twenty; had no children, and, so far as she knew, no miscarriages. But during the first five years of married life, on five or six occasions she went for "some time" without seeing anything—once for nine, once for eleven weeks—during which time she had no pain until she began to lose blood, when she was so ill as to be obliged to go to bed, suffering great pain, the same in seat and character as at the menstrual period, but worse; and the flow was more copious than usual, clots being passed. She did not send for a doctor on these occasions, and therefore did not know whether she had miscarried or not. She did not stop in bed for more than one or two days, but felt so weak for some time after each of these attacks that she had to lie on the sofa, not being able to do anything. The pain she usually felt at her menstrual periods became

worse after marriage, but the quantity of the flow became somewhat less. She suffered from leucorrhœa from the time she first began to menstruate ; this also became worse after marriage.

About five years ago, while hanging out some clothes, she thinks she overlifted, and therefore strained herself. She felt a soreness in the right iliac region and groin, going down the right thigh, and directly after this she began to menstruate. Ever since this the pain at the menstrual period had been worse, and had been felt *more in the "stomach"* than formerly ; had *persisted after the flow had stopped*, and had *not* been relieved by walking about. Menstruation had also been irregular in point of time, the interval varying from two to six weeks. Dyspareunia had been present throughout married life, but had been worse the last five years. For twelve months she had suffered from pain on defæcation, which was very severe, making her feel sick ; and after the pain the right leg would become numb, and she would feel pins and needles in it. The pains on intercourse and on defæcation resembled one another. She also had difficulty in holding her water, and occasionally pain on passing it. She was a fairly well-nourished woman. On abdominal examination there was pain on deep pressure over the region of the right ovary, nowhere else. Per vaginam, the uterus was found to be in a position of anteversion, and not to be freely movable. The vaginal portion was long and conical ; the external os circular, but admitting No. 12 bougie. The sound entered two and a half inches. The body of the uterus seemed rather large. A fixed, tender body, corresponding in size and shape to the ovary, was felt rather low down to the left of the uterus. There were no physical signs of disease in any other part of the body.

July 14th.—The vaginal portion was divided bilaterally with Küchenmeister's scissors, the inner end of the incisions slightly extended upwards with a scarifying lancet, and the cut surfaces rubbed with nitrate of silver to prevent primary union.

No elevation of temperature, or other bad symptom followed the operation, except some pain for three or four days afterwards. The patient kept her bed till July 24th and left the hospital on July 29th.

August 9th.—She stated that she menstruated from August 1st to the 4th inclusive, the quantity having been rather less than usual. She thinks that she never in her life menstruated with so little pain, and is quite certain that the pain is much less than

before coming to the hospital. She had only "just a little" pain in the back, nothing like what she was accustomed to have. The pain was *nearly all in her "stomach."* When asked what she means by "stomach," she points to *the ovarian regions*. Has had a "dragging pain" in the left ovarian region since menstruation, which is better to-day. The pain in defæcation is better, although still present. The dyspareunia and pain in micturition have gone, but she still has pain if she goes long without making water.

Sept. 20th.—Menstruated two weeks ago, with still less pain than previous time. The flow returned again slightly to-day.

These cases present many other points of interest upon which I refrain from commenting at present. I hope at a future time to discuss some of them from larger materials. For the present I offer the cases simply as items of evidence in support of the opinion of Dr. Williams, that long-continued obstructive dysmenorrhœa tends in time to produce ovarian pain also.

Notices and Reviews of Books.

A Case of Exanthematic Cirrhosis of the Ovary: resulting in Menstrual Epilepsy, and Cured by Oöphorectomy. By Lawson Tait, F.R.C.S. (Reprinted from the "Birmingham Medical Review," January, 1880.)

Die Castration des Weibes. (Separat-Abdruck aus der "Breslauer ärztlichen Zeitschrift," No. 23, December 23, 1879.) Von Prof. Dr. Spiegelberg.

The Spaying of Women. (Reprint from the "Breslauer ärztlichen Zeitschrift.") By Prof. Dr. Spiegelberg.

WE take more especial notice of these two reprints than of most pamphlets of the same size, on account of the interest which the subject at present possesses. The two writers approach and handle the subject very differently. Mr. Tait looks at the operation from the point of view of the venturesome, confident, and dexterous surgeon; Professor Spiegelberg from that of the scientific physician. Mr. Tait's case has been in part published before. The patient suffered at first from epilepsy, and then from mania which seemed to be passing into imbecility. Her symptoms were

from the beginning worse at the menstrual period, and menstruation was irregular, scanty, and painful. It had been found, during the earlier period of the patient's illness, that, while a galvanic intra-uterine stem was worn, menstruation became more copious and regular, and her symptoms were diminished. Full doses of bromide of potassium had been given for long periods without much benefit. Mr. Tait, therefore, in August, 1879, removed both ovaries. In October, the patient and her friends were "satisfied as to her perfect recovery." Mr. Tait states his belief "that in this operation of oöphorectomy we have the means of alleviating an enormous amount of suffering of an otherwise incurable kind." He has performed it fifteen times with three deaths, each of the three being cases of bleeding from myomata, in which he thinks the operation was unsuccessful because it was delayed too long.

Professor Spiegelberg begins by pointing out the important difference between the cases in which one ovary only is removed, and those in which both are taken away. The object in the one case is simply to ablate a diseased part; in the other, to put a stop to the sexual functions. He does not think that our knowledge of the diagnosis and pathology of oöphoritis and peri-oöphoritis is yet precise enough to warrant oöphorectomy for the former purpose alone. We cannot yet say that a particular pain has its origin in one ovary and not elsewhere, with enough certainty to justify us in attempting the removal of that ovary. In many cases in which the operation has been done for that purpose the pain has not been removed. But the removal of *both* ovaries, *i.e.*, *spaying*, has both a local and a general effect. It is the legitimate last resource in morbid conditions which have their origin in the sexual system. It is rational to perform it in cases of intractable uterine hæmorrhage, which is excited anew by each catamenial period. But it is obviously not permissible where the bleeding is due to malignant disease, nor where it results from the presence of a morbid condition which can be removed. The only cases, therefore, in which the presence of this symptom can demand the operation are those in which we have to deal with a fibroid which is incapable of removal. But in these cases the performance of the operation is peculiarly difficult, on account of the amount of room taken up by the fibroid, which narrows the space for manipulation; the frequency of dislocation of the ovary; and the shortness of the available pedicle. Professor Spiegelberg has performed it three times on account of this indication. In one the manipu-

lative difficulties were so great that the operation had to be abandoned: one died from septicæmia, and the third was not benefited. He concludes, therefore, that in hæmorrhage for irremovable fibroids, the risk attending oöphorectomy is so large in comparison with the uncertainty of the prospect of benefit, that the operation should only be undertaken in very exceptional circumstances.

He then considers the effects of spaying. He considers it certain that removal of both ovaries does bring about the cessation of the menses. The exceptional cases in which it has seemed as if menstruation persisted after double oöphorectomy, he thinks are open to three explanations. First, tumours supposed to have been ovarian may not really have been such; second, it is possible that an individual may have three ovaries; and, third, in the performance of the operation a little bit of ovarian tissue may have been left behind in the pedicle. The characteristics of womanhood are hardly touched at all by the operation. The mortality of the operation, unfortunately, is as yet high: much larger than that following the extirpation of ovarian cysts. As to the mode of operating, the author prefers an incision through the linea alba, except in cases where we have to do with a large fibroid, when it is possible that an incision in the flank may give more ready access to the ovary.

It appears to us that the chief hindrance to the acceptance of this operation as a legitimate resort in certain forms of disease lies in the difficulty of the diagnosis, and the imperfection of our knowledge of the natural history of these diseases. The results of the cases in which one ovary was extirpated to cure menstrual pain supposed to be situated in that ovary, sufficiently prove that with our present knowledge we cannot diagnose the seat of menstrual pain with enough certainty to make it worth the patient's while (unless her state be very desperate indeed) to run the risk of the operation. The indications for the operation would seem most clear in cases such as Mr. Tait's; but of them also a correct diagnosis is difficult, and our knowledge of their natural history very imperfect. Taking together cases of amenorrhœa from all causes, in the majority that symptom is secondary to something else, and is conservative and beneficial. And in cases in which the cause of the amenorrhœa appears to be in some part of the genital apparatus itself, the number of patients who do not suffer in the least, except from the effect of thinking themselves

ill, is so large that it would seem evident that mere absence of menstruation is not enough to cause symptoms in an otherwise healthy person. It is, moreover, not uncommon to find that in patients who are the subject of nervous disease, the symptoms become more pronounced at the menstrual period, even though the function be apparently healthily performed. Knowing, also, how commonly nervous disease is in some form or other hereditary, it is at least probable that in those cases in which grave nervous symptoms appear to be closely connected with disorder of the reproductive organs, the genital disturbance is no more than the exciting agent, the minor factor, of the disease; the predisposing cause, or major factor, lying much deeper. If such should be the relation, we cannot be certain of permanently benefiting the patient by taking away that which is at most the determining cause only, while the unstable condition of nervous system which allowed so slight and ordinarily innocuous a perturbation to upset it is left to succumb again, if any fresh disturbing agency should be brought to bear upon it. We do not think that English physicians will be found to sanction removal of the ovaries simply for hysterical manifestations. There is always, in that puzzling malady, the possibility that the patient may get well at any time if a powerful impression be made upon her emotional system. But even if the symptoms which appear to call for the operation seem indubitably to depend upon disorder of the genital system, we scarcely know enough of the natural history of these reflex symptoms, mixed, as they usually are, with hysteria, to be able to say with certainty that the patient will not recover, and must go from bad to worse, if she be let alone.

We say this, not in depreciation of the operation, but to point out what seems to us the fallacy attending the indications which seem to point to the necessity for it. Mr. Tait is obviously aware that these fallacies exist, for, speaking of his case, he says: "One question of course remains; will the improvement be permanent? I do not know." It is to be hoped that at a future time he will supply the answer to this important question. It is greatly to be desired that the cases in which spaying is to be performed should be fully described, and that their condition should be ascertained for a long period subsequent to the operation.

Abstracts of Societies' Proceedings.

OBSTETRICAL SOCIETY OF LONDON.

Meeting, Wednesday, February 4, 1880.

W. S. PLAYFAIR, M.D., F.R.C.P., *President, in the Chair.*

Fibroid Tumour of Vagina.

Dr. HERMAN showed a fibroid tumour of the vagina. It was removed from a patient aged forty, who had been married seventeen years, but had never been pregnant. The catamenia were regular, but copious; she had suffered from floodings two years ago, but not since. The tumour was about the size of a walnut, and was situated in the anterior vaginal wall, just behind the meatus urinarius. It protruded slightly through the vaginal orifice, making the patient think that her womb was coming down; and it was for this symptom that she sought advice. An incision was made over the tumour, and it was easily dissected out, chiefly with the handle of the scalpel. There was no hæmorrhage to speak of, and the wound healed readily. On microscopical examination, the structure of the tumour was found to be that of a fibro-myoma.

Dr. HERMAN also showed a specimen of a missed abortion with slight cystic degeneration of the chorion. The patient was aged thirty-four, and had had one child, five years previously. She ceased to menstruate in October, and began to have the usual symptoms of pregnancy. In February (at which time she thought herself five, months pregnant) she began to have slight pale-red discharge and pains like those of labour, except in severity. On examination, the uterus was found to be about the size of one three months pregnant, and acutely retroflexed. In June it was found still of about the same size. The patient continued to suffer from slight pain, and had not menstruated. A sound was therefore passed into the uterus. A fortnight afterwards the mole exhibited was expelled. It was about the size of a hen's egg, consisting partly of slightly-decolorized clot, and partly of a number of little, white, vesicular bodies connected by slender stalks, like those seen in cystic degeneration of the chorion. This mass was enclosed in a membrane, apparently the decidua

reflexa, and outside this was another membrane, free for part of its extent, seemingly the decidua vera.

Dr. HERMAN also showed some specimens of the so-called apoplectic ovum.

Supplementary Placenta.

Dr. ROPER exhibited a specimen of supplementary placenta, the size of the palm of the hand. The supplementary portion was developed two inches distant from the main placenta. No large vessels could be observed proceeding from the supplementary placenta to contribute to the foetal circulation.

Dr. ROPER also showed a cupped placenta of accidental hæmorrhage, at the seventh month of pregnancy. A rim of sound placental tissue existed all round the circumference of the placenta, while its central portion was deeply cupped, and its structure disrupted by extravasations of blood.

New Instruments.

Dr. HEYWOOD SMITH exhibited a belt for use after ovariectomy. It combined the advantages of opening in front with buckles and straps, and at the same time having laces at the back. Patients are thus enabled to put it on when lying down, whereby the abdomen is kept flat, and after the straps are fastened the laces can be drawn tight, and a comfortable fit is thereby secured. It is made by Russell, of George Street, Portman Square.

Dr. HEYWOOD SMITH also showed a grappling iron for use in cases of hysterectomy, or the removal of large solid ovarian tumours. In use it is suspended by over-head gear above the operating-table. On the tumour being drawn out of the abdomen, the grappling iron is applied, and the tumour held up in such a position that ligatures can be easily applied to its base, and the supporting of a heavy tumour by an assistant obviated.

Dr. HEYWOOD SMITH then called attention to an improvement in his ovum forceps. These forceps, fenestrated longitudinally, are so constructed that when the handles are firmly closed, the spoon-shaped blades close all round, thereby facilitating the removal of pieces of placenta, &c. The improvement consists in the joint, which is that employed in Spencer Wells's artery forceps,

whereby the blades can be separated, and each blade used separately as a spoon or scoop.

Dr. HEYWOOD SMITH lastly exhibited an improved duck-bill speculum. It consisted of three portions, any two of which could be easily joined together in the form of Marion Sims's speculum. The points of novelty were, that whereas Sims's speculum turns up at the end, forming a cup-shaped extremity, Dr. Heywood Smith's speculum had its ends open to facilitate the plugging of the vagina with the speculum *in situ*, and to prevent the plug being drawn out on withdrawal of the speculum; and also giving a wider field of observation. One of the blades was also made much shorter than that of Marion Sims: this enabled the uterus to be drawn down with the hook much lower than did the ordinary form; for with a long blade the pressure on the posterior vaginal wall prevented, to a certain extent, the descent of that wall. When the two portions of the speculum are separated, they may also be used as the speculum of Neugebauer.

Dr. ROPER said that many forms of ovum forceps had previously been exhibited before the Society. He was unable to see that the forceps exhibited possessed any advantage over the ordinary speculum forceps. This, like all others, was constructed on theoretical principles; it was assumed that the body which the forceps had to grasp was ovoid, and solid enough to retain its shape, like a calculus or a fœtal head. The ovum, on the contrary, was a fragile body which nearly certainly breaks down when the forceps is used to extract it. The really scientific way of removing an ovum was with the finger; for where the forceps could enter, the finger could go. The real danger in abortion was from flooding. After disruption of the ovum, the flooding depended upon adhesion of a small portion of placenta. When the ovum was entire and sticking in the os, flooding was rarely present, and the ovum could generally be removed by the administration of ergot and the ordinary speculum forceps. In removing a portion of placenta by means of the finger, care must be taken to use counter pressure on the fundus through the abdomen, so as to prevent laceration of the vagina near its attachment to the uterus. In very fat women such counter pressure on the fundus could always be satisfactorily made. In such cases, it had been his practice to draw down the uterus, and hold it down by a hook or vulsellum inserted into the anterior lip. Professor A. R. Simpson had written a very able Paper on

this subject, in which he had advocated this method of treatment.

Dr. AVELING remarked that often the best way of removing an ovum would be found to be the combined use of the finger and a scoop.

Dr. GRAILY HEWITT said that in some cases the difficulty in removing the ovum arose from the contracted state of the cervix ; a condition in which it might be necessary to resort to artificial dilatation with tents.

Dr. CHAMPNEYS said that no doubt the most troublesome cases of hæmorrhage after abortion are those in which the os internum is contracted ; but he thought that the persistence of the bleeding depended not so much upon the obstacle thus formed to the access of the finger and the extraction of the ovum as on the conditions of "uterine polarity," enunciated by Reil at the beginning of this century. This "uterine polarity" is exemplified by the antagonism which exists between the two poles of the uterus, contraction of one being accompanied by dilatation of the other. It is well known that some cases of uterine hæmorrhage are stopped simply by dilating the cervix.

The Histological Characters of Endometritis.

Dr. GALABIN showed microscopic sections to illustrate the histological character of the uterine mucous membrane in endometritis of the body of the uterus, as to which nothing was said in most text-books. The specimen was taken from a woman, aged thirty-eight, who died from septicæmia twenty-one days after an operation for strangulated hernia. During her illness she had a profuse vaginal discharge, of a somewhat rusty tint. Menstruation came on two days after the operation, and continued four days, ceasing fifteen days before death. At the autopsy, softening of spleen and liver was found, but no peritonitis. The body of the uterus contained rusty-looking mucus, and its mucous membrane was seen to be intensely injected with blood. A corpus luteum of menstruation, five-sixteenths of an inch in its greatest diameter, was found in the right ovary. The microscopic sections showed the inflammatory change to be chiefly in the epithelium of the glands, and of the surface of the uterus, while little alteration was seen in the inter-glandular stroma, except that there were numerous vessels distended with blood immediately beneath

the surface. The surface epithelium had lost its regular columnar character, and the cells were proliferating irregularly, many of them being rounded in shape. The epithelium of the glands was proliferating in the same way, and showed various transitions from the columnar to the round shape. The lumen of the gland-tubes was generally filled up with round cells, and at many points nothing but round cells could be seen in the tube. The absence of more noticeable change in the inter-glandular stroma was probably to be explained on the ground that the normal stroma of the uterine mucous membrane is closely allied to embryonic tissue, and therefore to the formative variety of inflammatory tissue.

The history of the case, and the pathological condition, appeared to show that the inflammation was of a somewhat acute character, and the result of the septicæmia. But there were signs that some chronic inflammation had preceded. There was an ordinary granular erosion of the cervix, of an evidently chronic character. Also there was a localised proliferation of gland-tissue in the body of the uterus, dipping into the muscular wall to more than a quarter of an inch from the surface. This somewhat recalled the mode of origin of cylindrical epithelioma of the body of the uterus, except that there was no proliferation of epithelium different from that seen at other parts of the mucous membrane.

The business of the Annual Meeting was then transacted, and the President delivered his Annual Address (which was published in full in our last Number).

OBSTETRICAL SOCIETY OF EDINBURGH.

SESSION XXXIX.—MEETING I.

Meeting, Wednesday, November 12, 1879.

Dr. WILSON, *President, in the Chair.*

Mr. S. Rothnie Adams, M.B., and Mr. Hamilton Wyllie, M.B., were admitted Ordinary Fellows.

I. Dr. WILSON showed the stomach and intestines from a slightly premature child which only lived eight days. The stomach was much enlarged, and a peculiar constriction

existed at its middle. The intestines were very contracted, and had the appearance of large worms. The child never had free evacuation of the bowels, in spite of repeated doses of medicine. It almost immediately vomited its milk.

II. Professor SIMPSON exhibited twin foetuses of six months utero-gestation. One had been dead for some time. They had evidently been developed from a single ovum; the amniotic sac and the chorion were double. It was interesting to observe the difference in the appearance of the placental area of the living child compared with the one which had died.

III. Dr. UNDERHILL exhibited Clover's Crutch, an apparatus for facilitating operations about the anus or vagina, more especially where sufficient assistance was not at hand. The contrivance was so arranged by a cross-bar and rings for the legs, to which was attached a strap which passed round the neck, that the limbs were fixed in the lithotomy position.

IV. Dr. CROOM showed a pair of forceps invented by Mr. Hilliard, surgical instrument maker, of this city. By a second handle, attached to a cross-bar connected with the handle, traction could be made in the same direction as with Tarnier's forceps, for which they were intended as a substitute.

V. The PRESIDENT then delivered his Valedictory Address:—

In retiring from the honourable position of President, to which, by your suffrages, I was elevated a couple of years ago, allow me again to thank you for the very great honour you conferred upon me on that occasion, as well as for all your subsequent kindness.

To preside over such a body as the Obstetrical Society of Edinburgh is an honour of which any one may well be proud, especially when we consider the eminent individuals who have occupied the position; and I shall ever retain a grateful recollection of your kindness in calling me to do so. At the same time I am well aware that it was not owing to any special services rendered by me to the obstetrical art or to the Society, as so many of my predecessors have done, but mainly, I believe, to the fact that I am one of the oldest members of the Society, and have always taken a deep interest in its prosperity. And this reminds me that the Society has now commenced its fortieth session, and consequently has existed for nearly a generation; and at one time I felt strongly tempted to contrast the present state of the obstetric art with what it was at the time the Society was instituted, but to do this in a thoroughly satisfactory way would

require more time and leisure than are at present at my command. But without carrying out this project in its entirety, perhaps I may be allowed briefly to indicate, especially for the younger members of the Society, a few of the more salient points of contrast, and, I think I may assuredly say, of the great progress our art has made during that time, and conclude with a few remarks on the present position of the Society.

The period referred to has been one of unparalleled activity in all the departments of medicine; and in this midwifery has shared in not a less degree than the sister branches of medicine and surgery.

It was about the commencement of this time that that wonderful genius, Sir James Simpson, for so many years President of our Society, succeeded to the Chair of Midwifery in the University of Edinburgh; and to him, in no inconsiderable degree, was much of the progress during the earlier period due. To another distinguished man, also a late President of our Society, though now removed from us to a more extensive sphere, does our art owe a considerable debt of gratitude for his researches connected with it. I need scarcely say that I refer to Dr. Matthews Duncan. Forty years ago the pathology of the female organs of reproduction was very limited, and confined nearly to the disorders of menstruation, leucorrhœa, polypus, prolapsus uteri, cancer, including cauliflower excrescence, ignoring altogether the important subjects of the versions and flexions of the uterus, cervical ulceration, endometritis, intra-uterine polypus, pelvic hæmatocele, peri- and para-metritis, subinvolution of the uterus, and many of the conditions giving rise to sterility, &c. &c. In fact, the means for the accurate diagnosis of some of these affections did not then exist. For at that time the uterine sound, sponge and tangle tents, hydrostatic and air dilators, the ecraseur, the exploring needle, the aspirator, the hypodermic syringe, and the use of the thermometer, had not been discovered or applied, and even the vaginal speculum was but rarely used. Need I remind you that to three members of the Society we are indebted for the discovery of several of these most valuable appliances?—I refer to Sir James Simpson, Dr. Keiller, and Dr. Alex. Wood. How invaluable they all are for diagnostic or therapeutic purposes I need not tell you. Anæsthetics also—chloroform and ether, chloral, potassium bromide, ergotine, oxalate of cerium, &c. &c., and I think I may add antiseptics also, besides others of more doubtful value—were

then unknown or unapplied. It is difficult now to conceive how we could get on without these important agents.

I need scarcely point out how completely revolutionised all surgery, not only ordinary but obstetric, has been by the discovery of chloroform. How divested of all horror every operation admitting of its use, including the every-day operations of turning and forceps, has become, and what an immense comfort it is to the operator, as well as to his patient, that the former should be enabled to proceed leisurely, and not be hurried or distracted by the sufferings or cries of the latter. In this respect, for diagnostic purposes alone, how invaluable chloroform is, we have almost daily illustrations. I need scarcely mention that there is one condition—that of phantom tumour—the diagnosis of which is made by the administration of chloroform alone.

This leads me to refer shortly to the use of chloroform in ordinary labour. Had any one forty years ago predicted that a patient could be delivered without suffering or consciousness, he would scarcely have been believed, or the case would have been considered an anomalous one ; and yet how familiar, indeed an every-day occurrence, is this to all of us now. I think sometimes we scarcely realise the importance of this most invaluable discovery, perhaps, next to vaccination, the greatest in the history of medicine, and certainly, so far as midwifery is concerned, attended with little, if any disadvantage.

The merit of this grand discovery belongs to Sir James Simpson as unquestionably as does that of vaccination to Jenner, and his name will be ever associated with it ; and were there nothing else than this, he might well be considered one of the greatest benefactors of the human race.

It is curious at this distance of time to recall some of the absurd objections urged against the use of chloroform in midwifery at the time of its introduction, such as that it was an interference with the primeval curse pronounced against woman, "In sorrow shalt thou bring forth children," and therefore that it was sinful to use it, as if man's daily endeavours were not a constant interference with the curse ; but all these have long disappeared.

The only objection to its use in midwifery being what we are all acquainted with—the tendency it has when fully administered to diminish the force and frequency of the uterine contractions, and probably tending to post-partum hæmorrhage, which can be obviated, however, by suspending its action for a time, and allow-

ing the patient to get out of it, or by mixing it with a third of absolute alcohol, as has been recommended, or administering subcutaneously a dose of ergotine. What a matter of thankfulness it is that, notwithstanding the immense number of times it has been administered, there has not as yet, so far as I am aware, been any death recorded from its use in labour!

In addition to the use of chloroform there are one or two points in the treatment of natural labour in which we differ in some respects from our predecessors, and which are worthy of a brief notice. But before doing this perhaps I ought to refer to the more accurate knowledge of the mechanism of parturition, natural and morbid, which, through the labours of Nægele and others, has been more largely diffused throughout the profession than formerly, and without which, as has been said, all scientific progress in practical midwifery is really unattainable, and by which alone we are able to deal in a satisfactory manner with the more difficult cases requiring operative interference. In facilitating accurate diagnosis I need not say how invaluable chloroform is.

The first of them is with regard to the management of the third stage of labour—viz., in the pretty general adoption of the practice at the present time of compelling the uterus, if I may use the expression, to finish its own work of expelling the placenta by its contractions, by grasping and following down the uterus after the birth of the child, and by avoiding all the traction on the cord which was so commonly recommended formerly.

By this great improvement I believe the risk of post-partum hæmorrhage will be reduced to a minimum, and hour-glass contraction after delivery will be rarely, if ever, met with.

A second point is the more liberal treatment of the puerperal female after delivery so far as diet is concerned, instead of subjecting her to the rigid antiphlogistic treatment so much in vogue forty years ago. This is probably an improvement on the whole, though I must say I never saw any evil result from a day or two of somewhat limited diet immediately after delivery.

The last is the greater importance attached to securing the complete involution of the uterus by strict confinement to the horizontal position for a considerable period after delivery, to which we are inclined to attribute the great freedom in our own practice from subsequent uterine disease after labour as well as after abortion.

One of the most striking features of the midwifery of the pre-

sent day, as contrasted with that of forty years ago, is the much greater frequency with which forceps are used at the present time with what they were then. This is well shown in the statistics of the Rotunda Hospital, where, out of a total of 16,414 labours during Dr. Collins's mastership from 1826 to 1833, forceps were used in 27 cases—*i.e.*, once in 608 cases; and in the Royal Maternity Charity, out of a total of 48,996 labours from 1828 to 1850, forceps were used 73 times—*i.e.*, once in 671 cases; whereas in the Rotunda Hospital under Dr. Johnston, out of 7862 cases from 1868 to 1875, forceps were used 752 times—*i.e.*, once in 10 or 11, and under Dr. Lombe Atthill, from 1875, once in 14 in-cases and once in 29 out-cases. It would be absurd in any one to attempt to determine how often forceps ought to be used, but we cannot help thinking that, in Dr. Johnston's practice, they were used too often and in some unsuitable cases, seeing his mortality from forceps and craniotomy combined amounted to 63, whereas that of Dr. Collins's was 19, and that of Dr. Ramsbotham only 9, though the number of Dr. Collins's cases was fully double that of Dr. Johnston, and that of Dr. Ramsbotham six times greater. But, notwithstanding this, I think most, if not all, of you will coincide in the very nearly universal opinion expressed at the late most interesting discussion on "the use of the forceps and its alternatives in lingering labour" at the Obstetrical Society of London, that the more frequent and early use of forceps when the head is in the pelvis is a measure in careful hands not only unattended with danger to mother and child, but really in many cases a humane and beneficial procedure for both, and attended by a considerable saving of time to the practitioner—not an unimportant consideration, for we can well remember cases in our early practice which could have been safely terminated by forceps hours earlier than they were in conformity with the ideas and practice then in vogue; and here we cannot avoid noting how much by his practice and writings our illustrious *confrère*, Dr. Hamilton, of Falkirk, has done to advance the more frequent use of the forceps where the head is arrested low down. None of us can have forgotten his most interesting demonstration at the Society last session, nor his marvellous success of "1371 successive births with only three deaths; in these there were 190 forceps cases with only two deaths," but, as Dr. M'Donald pointed out at the time, "these cases, as a rule, are very simple." On the other hand, it must never be forgotten that when the head is high up, at or above

the brim, with an imperfectly expanded os, and especially if that be rigid, the application of forceps is not by any means an easy operation or one free from danger, and certainly not to be lightly undertaken or by other than experienced and skilful hands. Making every allowance for this, the day, I believe, has passed when any practitioner in the kingdom will be found whose forceps cases, like those of the late Dr. Robert Lee, were only one-third of his craniotomy cases; and though we confess we never expect to see the dream of the late Dr. Tyler Smith realised, there is no doubt that with the more frequent use of the forceps and turning in suitable cases, as advocated by Sir J. Simpson, craniotomy must become rarer and rarer; and we think that in a considerable number of cases a trial of one or other of these ought very generally to precede this distressing operation.

Here I may say a few words as to ergot. Whilst the sphere of the forceps has been more and more extended, that of ergot is becoming more and more restricted, at least in labour. Setting aside for the present its use in cases of hæmorrhage, where it is often of great value, its use is nearly confined to cases of uterine inertia in multiparæ, where the pelvis is known to be roomy, and where there is believed to be no obstruction, and where, if it fails to act satisfactorily, we can apply forceps. In cases where labour is delayed owing to rigidity of the os and cervix or premature rupture of the membranes, I ought not to omit to mention the great assistance often rendered by artificial dilatation either by the finger or dilators.

The relative merits and scope of the two operations of turning and forceps in contracted pelvis have led to much discussion, which is not by any means settled yet. At the same time there can be no doubt that version has succeeded in cases where forceps have failed, and is especially suited for cases where the head is loose and refuses to enter the brim, or when forceps cannot be easily applied. On the other hand, it is considered to be unsuited to cases of uniformly contracted pelvis, or where the head has become more or less fixed. In these and in the minor degrees of contraction forceps are held to be more generally applicable, but the choice of the particular operation will, I have no doubt—as, I think, was suggested by Sir J. Simpson—depend a good deal on the dexterity of the operator as far as that operation is concerned. One who is expert at turning will naturally prefer that to forceps, and *vice versa*.

With regard to craniotomy I have little to say, save that a considerable improvement of late years has been effected in its performance by improved perforators, and above all by the use of the cephalotribe in many of the cases, as has been well shown by Dr. Keiller and others.

With regard to that truly conservative operation, the induction of premature labour, after a trial of a variety of means for effecting it, I believe the passing up of a flexible catheter to separate the membranes, and the completion of the operation by means of the hydrostatic dilators now pretty generally adopted, leave little to be desired. The sphere of the operation has been considerably enlarged by resorting to it in a variety of cases not originally contemplated—not only in the case of females who habitually give birth to children with large heads, but also in the case of those who have repeatedly given birth to dead children at the end of pregnancy, and where, by the induction of labour at an earlier period, a living and viable child has been born, as in cases brought before the Society by Drs. Keiller, Hart, and others.

I may here mention the very great addition to our resources by the substitution of Dr. Braxton Hicks's method of combined internal and external turning in lieu of the old operation. I need not say that this is invaluable in many cases; but here I may be permitted to mention that it was to the late Professor Hamilton and Dr. Moir, one of our late Presidents, that we are indebted for first pointing out how easily in many cases turning can be effected, when the waters are undischarged, without the introduction of the hand into the uterus. This, however, does not detract in any way from the merits and value of Dr. Hicks's method.

With regard to the great subject of ante-partum hæmorrhage, especially placenta prævia, always a most important and interesting subject to the obstetrician, very great advances have been made in its pathology and some in its treatment of late years, as was well brought out in the discussion which followed the reading of Dr. Chas. Bell's most interesting Paper on that subject. As some of these are still *sub judice*—viz., Sir J. Simpson's and Dr. Barnes's proposals to separate the placenta wholly or partially—and as my personal experience has not been sufficient to entitle me to speak with confidence beyond expressing my belief that, when the hæmorrhage is considerable and the child has reached

a viable period, the sooner pregnancy is terminated the better will it be both for mother and child, and that, when the os is at all rigid, plugging is the great resource. For this purpose there is nothing better than Dr. Keiller's or Barnes's dilators, in not only helping to stay the hæmorrhage, but also in promoting the dilatation of the os. When this is effected, rupturing the membranes, turning, or other means of effecting delivery as may be deemed most advisable, can be had recourse to. With regard to accidental hæmorrhage, when the placenta is not prævia—for we are inclined to agree with those who consider many of the hæmorrhages of placenta prævia as really accidental in their nature—I believe the practice recommended when the hæmorrhage is not so great as to demand immediate delivery (as in those sad cases related by Professor Simpson)—viz., rupturing the membranes and giving ergot or injecting ergotine, as in the cases brought before the Society in Dr. Underhill's Paper, is one that is usually followed by a successful result, at least to the mother.

As to post-partum hæmorrhage, I think you will agree with me that a most important practice in this, as in many other cases in medicine, is the preventive already alluded to of allowing the second stage to be slowly completed, especially in instrumental cases, and following down the uterus, so as to cause it to extrude the placenta. The practice adopted by many of administering a good dose of the liquid extract of ergot, or a subcutaneous injection of ergotine before the completion of the second stage, is, we think, a very good one, especially if there be any reason to fear an attack of hæmorrhage. When, unfortunately, severe hæmorrhage does occur, and milder remedies have failed, we cannot help thinking that a modification of the practice so strongly advocated by Dr. Barnes—viz., the passing up a sponge soaked in the perchloride of iron solution into the uterus—would be a great improvement over the injection of this agent, as recommended by him, which has unfortunately been followed in some cases by fatal consequences. The value of this practice must therefore, in the meantime, be considered to be *sub judice*.

I may notice the great improvement of late years in the treatment of those troublesome cases of hæmorrhage following abortion in the early months, where part of the placenta or membranes is retained, and where the os is closed so that a finger cannot be admitted, as not unfrequently happens. When, by opening it up by means of a sponge or tangle tent, so as to get access to the

source of the bleeding or discharge, and removing this by the finger or otherwise, we thereby relieve the patient from a position of considerable peril. This, of course, is equally applicable to all cases of hæmorrhage when it is intra-uterine, as was, I think, first put in practice by Sir James Simpson.

In connection with the subject of hæmorrhage, the recognition of the phenomena of thrombosis and embolism, which has only taken place within the last forty years, deserves notice, and is almost the only important subject which has not come up for discussion before the Society during the last two sessions. I need not say how large a number of serious, nay, fatal cases of disease are referable to the occurrence of blood-clotting, whether local or transferred, and how much light it has thrown upon cases that were previously obscure. I suppose most of the sudden deaths after delivery may be referred to this category.

Hitherto, unfortunately, the practical results, so far as treatment is concerned, have not been great, but there is very little doubt that in the course of time the observation of the conditions giving rise to these diseases, which have been so clearly pointed out by the distinguished President of the London Obstetrical Society in his valuable Papers on this subject, must ultimately tend to important results in the way both of prevention and treatment.

The important subject of puerperal eclampsia has naturally had a great deal of attention paid to it during the last forty years, and very great advances have been made in its pathology, as the discovery of albumen in the urine, &c. The latest, and not least important of these, was brought forward by Dr. Angus Macdonald in his most interesting and valuable Paper read before the Medico-Chirurgical Society here at a recent meeting. Of course it remains to be seen whether Dr. Macdonald's views are corroborated by subsequent observers; but if so, it will be the most decided advance on what is still confessedly an obscure subject that has been made since the discovery by Lever of the presence of albumen in the urine in cases of puerperal convulsions. As to treatment, there can be no doubt that the administration of chloroform and chloral have been improvements on the old plan of treatment by profuse venesection; but statistics are still wanting to show the amount of this; and the mortality being still very great, there is room for considerable improvement on this point.

With regard to puerperal fever, or septicæmia, as it is now per-

haps more correctly denominated, most important advances have been made of late years in the pathology and etiology of this justly-dreaded disease, which seems to be even a greater scourge in Germany than in our own country. Some of these were brought out in the discussions following the reading of Dr. Baird's interesting communications to the Society. And though there are a number of unsettled points in its pathology, and still more in its treatment, requiring clearing up, the knowledge which has been attained of its connection with decomposing portions of placenta and other matters, and its frequent origin in the introduction of the cadaveric, erysipelatous, scarlatinous, and possibly other poisons, and the various ways in which these may be introduced into the system, are of the highest value in a preventive point of view. In regard to treatment, unfortunately, as in so many other cases, this has not progressed so much as our knowledge of the diseased actions; still there has been progress even here especially from the frequent use of antiseptic injections of the vagina and uterus, which, in some cases, appear to have been of the greatest value. That this disease has occasionally followed the steps of individual practitioners while their neighbours have been free from it, there can be no doubt, as the Society's records will show; and, unfortunately, the mischief has often been done before it has been suspected. This, of course, should lead to the greatest care on the part of the practitioner at all times in avoiding, as far as possible, all probable sources of mischief, and by disinfecting when this is unavoidable, as in the exigencies of daily practice it sometimes must be. It is also believed, and we think correctly, that the disease is not unfrequently communicated through nurses, who, in some cases, are more likely to do so than even the accoucheur, and should be cautioned as to the risk. This leads me to remark that the Society at one of its recent meetings took up the consideration of the education of midwives, and unanimously agreed to the following Resolution:—"That the Edinburgh Obstetrical Society approves of the principle of the proper education, examination, and registration of midwives, and refers to the Council to take such action in the matter as they may deem advisable to carry out these views."

If deaths from puerperal fever were eliminated, I think puerperal mortality in ordinary midwifery would be very small indeed. Judged by our own experience, it would certainly be a vast deal

less than what has been assigned by Dr. Matthews Duncan as the normal mortality in child-bed ; but even with the addition of fever cases, we cannot help thinking Dr. Duncan has pitched it too high, and not sufficiently taken into account the circumstance that many of the deaths occurring within a month after confinement would have happened about that time whether the patient had been confined or not—*e.g.*, many cases of phthisis.

There are three subjects of obstetric surgery which I shall briefly mention, that forty years ago were really amongst the greatest opprobria of the medical, or rather the surgical art, and which are not only not so now, but are in reality amongst the highest triumphs of it. I mean fistulæ of the bladder and rectum, which, when of any extent—such a case as that of the late Professor Gustav Simon, brought before the Society by Dr. Duncanson—were almost incurable, and the unfortunate subjects of which were, owing to their loathsome infirmity, excluded from society ; also the cognate subject of lacerations of the perinæum, in the cure of both of which our friend Dr. Keiller has done good work ; and, last, though not least, ovarian disease. At the time I refer to, so far as I am aware, only four operations for the removal of diseased ovary had been attempted, in Scotland, at least. In one of these no tumour was found, and in a second the operation could not be completed, and in the third the patient died a few hours after the operation, so that it is not to be wondered that the general opinion of the profession then, and for some time after, was that of the late Professor Syme, “that it would be very unjustifiable to repeat the operation, since for every life prolonged by it many must be sacrificed.” Need I say how different this is from the actual state of matters now, where Dr. Thomas Keith, to whom society and the profession owe a deep debt of gratitude for his labours in this department, out of his last fifty operations, performed within a period of less than two years, lost only two patients ? Need we, then, despair of getting rid of almost any infirmity admitting of surgical interference ? And here, perhaps, I may be permitted to congratulate Professor Simpson on having been the first in Scotland to perform, and that successfully, Battey's operation, or oöphorectomy, as it is now called. Probably the cases demanding the operation cannot be numerous, though I see two in the *Journal*. Still I think we may account it as a substantial addition to our resources and a gain to suffering humanity. But I must conclude ; and perhaps I

ought to apologise to you for taking up so much of your time with an account of matters with which most of you are familiar. Still, it is not without interest to take stock, as it were, from time to time, and record our progress; and though "there is still much ground to be possessed," you will agree with me that our art during the last forty years has been far from stationary, and that in this progress the Society, through some of its members, has been no inefficient agent.

As to the lacerations of the perinæum, I would inculcate the great importance of endeavouring in all cases to secure union by the first intention—which, I believe, can generally be done—by the immediate insertion of one or more metallic sutures.

The President then referred more briefly to some of the Papers brought before the Society in the past two years; and to the present position of the Society, both as to members and as to finance.

Dr. KEILLER, in cordial and complimentary terms, referred to the valuable service rendered by Dr. Wilson to the Society during his tenure of the presidential chair, and congratulated him on the very excellent and elaborate Address which he had just delivered, an Address excelling in its exhaustiveness all previous communications he had heard from the Chair. He was glad Dr. Wilson had referred to the great services rendered to the Society by the late lamented Sir James Simpson, who from the earliest period of the Society's existence had taken such an interest in its welfare. He called on Dr. Charles Bell, the oldest member present, to propose a vote of thanks to the President.

Dr. CHARLES BELL, in complimentary terms, then proposed a cordial vote of thanks to the President.

Professor SIMPSON heartily seconded the motion, and shared most cordially in the general feeling of admiration expressed at the able Address of Dr. Wilson, which was indeed a most valuable *résumé* of the subject. The motion was carried by acclamation.

VI. Dr. HALLIDAY CROOM then read a Report of Cases treated in the Royal Maternity and Simpson Memorial Hospital during the last three months.

In compliance with an understanding come to at a recent meeting of this Society, when it was arranged that each Ordinary Physician should give an account of his three months' term of office at the Maternity, I now beg to submit the following Report:—

During the three months ending 31st October there were 47 intern cases, and 114 extern cases.

In offering a report upon these cases, it is desirable to look at the two groups of extern and intern cases separately. My reason for this division is that any data derivable from the extern practice of the Hospital I believe to be of comparatively little value. The cases are attended by junior students and nurses, and it is but rarely, and only when some complication has arisen, that the physician on duty, or resident, sees the case. I therefore leave till the end a brief report of the out-door cases. The intern cases will be examined under the respective heads of Pregnancy, Parturition, and Puerperium.

I. PREGNANCY.

The short period during which patients remain in the Hospital previous to their delivery renders any extended observations impossible. Of the 47 cases, 26 were multiparæ, 21 were primiparæ.

The numbers were as follows :—I. paræ, 21 ; II. paræ, 17 ; III. paræ, 4 ; IV. paræ, 2 ; V. paræ, 1 ; VI. paræ, 1 ; VII. paræ, 1.

One case of gravid retroversion between the second and third months occurred, in which reposition and retention were easy and satisfactory.

One case of salivation during the last six weeks of pregnancy was admitted ; and as it presented some points of interest, perhaps I may be allowed to give it in detail :—

Barbara Swanston, II. para, was, after a normal pregnancy, naturally delivered of a living child six years ago. Two years after her last labour she underwent an operation for ranula. She again became pregnant, and until the last six weeks the progress of her pregnancy was normal. For five weeks previous to admission she suffered constantly from vomiting and salivation. During the four days she remained in Hospital previous to delivery she retained scarcely any food, and the amount of saliva excreted varied between twenty and thirty ounces daily. It is well known that vomiting and salivation are usually met with in the early months of pregnancy. Once set agoing, they may persist all through utero-gestation. In this patient, however, they were developed between the seventh and eighth months, suggesting the possibility of over-distension of the uterus by twins or hydramnios. The ptyalism continued uninterruptedly till the evening of

the 20th, when, without any cause, and previous to the onset of labour, the membranes ruptured, and the liquor amnii slowly drained away. The vomiting and salivation ceased immediately. Labour set in eighteen hours subsequently, but from the first escape of liquor amnii the symptoms entirely ceased. Although it was impossible to estimate the amount accurately, yet the liquor amnii was much in excess of normal.

The patient having previously suffered from some affection of the sublingual gland affords a ready explanation of the peculiar liability, in this special case, of the salivary glands to sympathetic irritation. Further, the presence of hydramnios is sufficient explanation of the occurrence of ptyalism in the latter months. And, again, the instant cessation of the symptoms on the first slight escape of liquor amnii is a strong argument in favour of the proceeding advocated by Playfair—viz., to aspirate the amnionic sac, in cases of hydramnios, with a fine needle.

Two cases of marked chloasma—developed over the brow, malar bones, and one cheek in one, and nearly the entire face in the other—were admitted, and in both the pigmentation gradually diminished during the puerperium. In both cases the ordinary pigmentation in the usual sites was unusually deep.

One case of scoliosis. The patient presented a right lateral curvature of the spine. On examination the pelvis was found normal, and the labour ended naturally.

II. PARTURITION.

There were 47 children born, of whom 27 were males, and 20 females.

The classification of the labours was:—37 natural labours, 6 preternatural labours, 4 complex labours.

Of the 37 natural labours the positions of the vertex were:—Left occipito-anterior, 25; right occipito-posterior, 12; left occipito-posterior, 0; right occipito-anterior, 0.

One street birth occurred, in which the position of the vertex was not ascertained.

The relative frequency of right occipito-posterior positions is in excess of the ordinary. Relative frequency in multiparæ and primiparæ:—Primiparæ, 5; multiparæ, 7.

No primary case of right occipito-anterior position occurred, although the position as a secondary one,—viz., as a transition from right occipito-posterior, was frequently observed.

In every case the forward rotation of the occiput took place, except in the labour complicated with eclampsia, in which the occiput remained persistently posterior. In two cases forceps were found necessary—in the case just mentioned, in which they were employed to shorten the labour owing to the eclampsia, and not owing to the position of the head, and in a case, about to be described, of placenta prævia.

Six preternatural labours took place.—They were all breech cases. The positions were :—Left sacro-anterior, 3 ; right sacro-posterior, 2. In one case the fœtus was premature and putrid, and the labour so far advanced before examination that the position could not be ascertained.

Four complex labours.—Placenta prævia, 1 ; twins, 2 ; eclampsia, 1. The placenta prævia was partial on the right side. The hæmorrhage was very profuse. Before being admitted, the vagina had been plugged by the resident. On admission, the os was dilated as large as the rim of a tea-cup, membranes ruptured, head presenting and well down. The indications for management were therefore obvious—application of forceps—and patient did well.

Two twin cases:—One at full term. Age of mother, twenty-one. Primipara. *Presentation*—Both head, L.O.A., R.O.P. *Placenta*—Two placentæ. Membranes separate ; united by merest tack of chorion. *Children*—Both males. *Interval*—1 hour 38 minutes.

One premature, eight months. Age of mother, twenty-two. Primipara. *Presentation*—Head, breech. *Placenta*—One placenta. Common chorion. Two amnions. *Children*—Both males. *Interval*—22 minutes.

Eclampsia.—A multipara, aged twenty-seven, was sent to Hospital in advanced labour, with eclampsia. The head, face to pubes, was on the floor of the pelvis, and the patient in a violent convulsion. She was placed under chloroform, the urine drawn off, and was delivered with forceps. The urine contained blood, one-fourth albumen, and granular tube-casts. As the bowels were loaded, a purge of croton oil was administered, and diaphoresis kept up by the exhibition of one-sixth of a grain of pilocarpine. The patient kept under the influence of chloral and bromide of potassium for two days. There was no return of the eclampsia, and the patient made a good recovery.

Forceps were used twice :—1 placenta prævia, 1 eclampsia.

Mortality.—Maternal, septicæmia, 3 deaths. Fœtal, 5 still births. Infantile, 8 deaths—premature birth, 5 ; atelectasis pulmonum, 1 ; syphilis, 1 ; defective nutrition, 1.

III. PUERPERIUM.

Of the 47 women delivered, 35 completed the puerperium without any abnormal symptoms, or at least with an inconsiderable and occasional increase of pulse and temperature.

The remaining 12 had complications more or less severe :—6 pelvic peritonitis ; 1 acute general peritonitis ; 2 melancholia ; 3 puerperal septicæmia.

During the month of August six cases of pelvic peritonitis were developed, which, though smart, were of short duration and favourable in their termination.

There was one case of general peritonitis, which also ran a short course and had a favourable termination.

Two cases of acute melancholia occurred, in both of which the nervous symptoms passed off before dismissal.

In three cases the perinæum was torn—in two to the verge of the anus, and in the third to within half an inch. In all the cases stitches were introduced immediately after delivery. In two there was complete union. The third did not heal, owing to the unhealthy and syphilitic condition of the parts.

In one case, where the tear was to the verge of the anus, there was retention of urine, which lasted for several days, requiring the use of the catheter.

It would be beyond the scope of a report such as the present to give any lengthened description of all the important cases ; but the three following, in which the termination was fatal, deserve special notice :—1. Eliza Mackenzie. 2. Elizabeth Fisher. 3. Mary Manzie.

CASE I.—Eliza Mackenzie, aged twenty-three. First pregnancy. Last catamenia began in October, ended 4th November, 1878. No miscarriages. Admitted 8th August, 1879. Delivered 10th August, 1879, at 7.57 P.M.

Labour.—First stage, 52 hours ; second stage, 1 hour 85 minutes ; third stage, 23 minutes.

Position.—Left occipito-anterior. Female child, weighing 7 lbs. 4 ozs. Alive.

After Progress.—10th August.—During the third stage she

complained of great pain over the uterus. Immediately after delivery her pulse was found to be 130 per minute.

11th August.—Spent a restless night, and at 6 A.M. her pulse was 170, temperature $102^{\circ}6$; at 10.30 A.M., pulse 126, temperature $100^{\circ}2$; 8.30 P.M., pulse 140, temperature $101^{\circ}6$. Respirations, 34 per minute. As pain was present over the lower part of the abdomen, she was blistered, and poultices were applied. One grain of opium was given at 4 P.M., and $\mathfrak{m}$ iss. of tincture of aconite ordered every hour and a half. At 10.30 P.M., temperature $101^{\circ}6$, and respirations 42. Ordered 1 gr. of opium and $\mathfrak{m}$ v. of spir. terebinth rect. in a little milk every two hours. Poultices and aconite to be continued.

12th August.—At 6 A.M., pulse 140, temperature 101° . 1 gr. opium administered. At 10.30 A.M., pulse 142, temperature $100^{\circ}2$. The pain over the abdomen is very intense, and greatly aggravated by a cough caused by bronchitis, from which she was suffering on admission. To get $\mathfrak{R}$ Ammonia carb. $\mathfrak{v}$ j., Spir. chloroformi, Tinct. card. co. $\mathfrak{a}\mathfrak{a}$ $\mathfrak{z}$ ss., Syr. tolut. $\mathfrak{z}$ iss., Decoct. senegæ ad $\mathfrak{z}$ vj. Sig. $\mathfrak{z}$ ss. quartis horis; and supposit. morphiæ gr. $\frac{1}{4}$ every four hours. A leech was applied to either groin, and the blister repeated. Turpentine stopped. Ordered tinct. ferri perchlor. $\mathfrak{m}$ xv. every two hours. Respirations 44. 8.30 P.M., pulse 154, temperature $100^{\circ}4$. 10 P.M., discontinue the aconite. To get $\mathfrak{z}$ ss. of brandy every two hours.

13th August.—At 2 A.M., face being very flushed, no more brandy was given till 6 A.M., when a $\frac{1}{4}$ gr. morphia suppository was also given. 10.30 A.M., pulse 120, temperature $99^{\circ}7$. Patient seems much better. Improvement continued during the day, but at 8.30 P.M. vomiting began. Pulse 140, temperature $101^{\circ}4$. Great pain over the abdomen, aggravated by the coughing and vomiting. Ordered $\frac{1}{4}$ gr. morphia suppository, followed by another at 9 P.M. Brandy was given in small doses every quarter of an hour; but as she, after a time, failed to retain it, subcutaneous injections of sulphuric ether were given at short intervals, with temporary improvement of pulse. The vomited matter had the appearance of coffee-grounds, the pulse became more and more feeble, and death took place at 4.45 A.M. on 14th August, four days post partum. No post-mortem examination was allowed.

CASE II.—Elizabeth Fisher, aged thirty-three. Second pregnancy. Last catamenia in November. No miscarriages. Admitted 17th August, 1879. Delivered 17th August, 4.35 A.M.

Labour.—1st stage, 16 hours; second stage, 2 hours 35 minutes; third stage, 15 minutes. Female child, weighing 8 lbs. $\frac{1}{2}$ oz. Alive.

Progress.—After delivery a longitudinal furrow was noticed in the anterior surface of the uterus, as if produced by irregular contraction; it disappeared in the course of the day. She had a rigor after the completion of the third stage.

17th August.—Morning, pulse 84; temp. $98^{\circ}8$.

19th August.—Morning, pulse 130, temp. $103^{\circ}4$. Evening, pulse 132, temp. $102^{\circ}9$. Complains of severe pelvic pain. Turpentine stupes applied, and at 8.30 P.M. Pil. opii gr. $\frac{1}{2}$ given. The uterus being somewhat enlarged and painful, an injection of ergotin was given.

20th August.—Morning, pulse 144, temp. $102^{\circ}6$. Evening, pulse 132, temp. 101° . Aconite was ordered, but as retching occurred after each dose it was stopped, and bismuth given, which stopped all tendency to vomit. A good deal of diarrhœa has set in. Ordered Quiniæ sulphatis, gr. xxiv., Acid sulph. dil. ʒiv. , Aquam ad. ʒvj. M. Sig. $\text{ʒss. quartis horis.}$

22nd August.—Morning, pulse 126, temp. $102^{\circ}4$. Evening, pulse 122, temp. $102^{\circ}8$. Diarrhœa much better.

23rd August.—Morning, pulse 120, temp. 102° . Evening, pulse 140, temp. $103^{\circ}6$.

24th August.—Morning, pulse 134, temp. $102^{\circ}8$. Evening, pulse 136, temp. 103° .

An erythematous patch appeared over the nose and face. Ordered tinct. ferri perchlor. ʒxx. every two hours. At 7.45 P.M. she became very pale and faint, with great dyspnœa. Tongue very dry. Vomiting. Pulse very rapid and feeble. Urine drawn off; was found to be albuminous, and contained fatty tube-casts. Ammonia and chloric ether were given, and ʒss. of brandy every hour.

25th August.—Morning, pulse 144, temp. $101^{\circ}2$. At 10.30 A.M. there was great dyspnœa. Respiration 64. Pulse very weak and rapid. Tongue dry. Complains of great tenderness over upper part of abdomen on deep pressure, and of pain on drawing her breath and coughing. Ammonia discontinued, Brandy ʒss. every hour. She gradually became worse, and at 1 P.M. was unconscious. Sulphuric ether was injected subcutaneously with no benefit. Died at 11.30 P.M. Autopsy performed by Dr. D. J. Hamilton.

Report.—*Abdomen* contained a couple of ounces of semi-purulent-looking fluid, chiefly in the pelvis, along with some lymph over the broad ligament on the right side. Uterus about half an inch above the brim. There did not seem to be general peritonitis, the effusion being confined to the deeper portion of the abdomen. *Left kidney* pale, anæmic, capsule strips off easily, somewhat firm in texture. *Right kidney* in a similar condition. *Liver* somewhat congested and fatty. *Spleen* anæmic, soft and pulpy. *Heart*—Calibre of aorta small, valves healthy, endocardium of left ventricle a little thickened; a firm clot in the right ventricle, which is also much blood-stained. *Lungs* congested and extremely œdematous. *Uterus*—At the part where the placenta had been attached there was a large fungating slough adherent to the uterine wall. No putrefactive odour. On *microscopical examination* it presented all the appearances of a diphtheritic surface strongly marked.

CASE III.—Mary Manzie, aged twenty-four. Second pregnancy. Last catamenia end of December. No miscarriages. Admitted 25th August, in labour. Delivered 26th August, at 3.25 A.M.

Labour.—1st stage, 20 hours; second stage, 9 hours 25 minutes; third stage, 11 minutes.

Position.—Left occipito-anterior. Male child, weighing 8 lbs. 7 ozs.

Progress.—Immediately after delivery her pulse was 108.

26th August.—Morning, pulse 108, temp. $99^{\circ}2$. Evening, pulse 150, temp. $102^{\circ}4$. Is very restless. Pain in lower part of the abdomen. Poultices with opium applied. R. Pil. opii, gr. $\frac{1}{2}$. Statim sumend.: R. Tinct. aconit., m̄iss. every two hours.

27th August.—Morning, pulse 132; temp. $101^{\circ}2$. Evening, pulse 158, temp. $101^{\circ}6$. At 11 A.M., the pelvic pain still being present, the abdomen was blistered from the umbilicus downwards and more poultices applied. Pil. opii gr. $\frac{1}{2}$. The aconite omitted, as it caused sickness. 6.30 P.M.—Quinine, gr. x. every two hours. 9 P.M.—Suppositor. morph. gr. $\frac{1}{4}$. 10 P.M.—Having had 40 grs. of quinine, it was ordered to be given every three hours only. Pulse very weak and rapid. Ordered $\mathfrak{z}$ ss. brandy every hour. Great tympanites. At 11.30 P.M. an enema containing $\mathfrak{z}$ ij. of tinct. assafoetidæ was given, but with little or no relief of the tympanites. An hour later a large enema (oij.) containing $\mathfrak{z}$ j. of turpentine was attempted, but when half was given violent vomiting

came on and it was ejected ; the remaining half was then injected and retained about ten minutes, but with no relief of the tympanites. Ordered as much beef-tea and milk as she can take.

28th August.—Morning, pulse 148, temp. $101^{\circ}2$. Evening, pulse 148, temp. $101^{\circ}4$. At 4 A.M., being unable to retain the beef-tea and brandy, enemata were given every hour, containing ʒiv . beef-tea, ʒss . brandy, and tinct. opii mxxx . These were retained. 8 A.M.—Turpentine, which she had been taking for the tympanites, appearing to aggravate the vomiting, was discontinued. The vomiting still continues of green bilious-looking material. Ice was given to allay the thirst and relieve the vomiting.

Evening.—She vomited greatly during the day, and could retain nothing on her stomach. She retained several enemata of beef-tea and brandy during the early part of the day, but towards evening they were returned. She retained a little brandy administered by the mouth, after a sleep induced by a subcutaneous injection of morphia.

29th August.—Morning, pulse 136, temp. 98° . Between 5 and 10 A.M. she took and retained a good deal of milk and brandy. At 10 A.M., being almost pulseless, a subcutaneous injection of ether was given. Fæces and urine now passed involuntarily. 11.15 A.M.—Pulse 136, very weak. Brandy was given in small quantities, but frequent vomiting again took place. An enema of beef-tea and brandy was ejected immediately. Subcutaneous injections of ether were given at intervals, but only with temporary benefit. Hypodermic injections over the pit of the stomach induced sleep, but had little or no effect on the vomiting. At 1 P.M. she passed into a state of low muttering delirium, gradually got weaker, and died at 9 P.M.

Autopsy by Dr. Hamilton.—About ʒiij . of purulent fluid were found in the abdominal cavity, with flakes of lymph, more especially in the neighbourhood of the uterus and ovaries. Intestines and stomach were largely distended with gas. On cutting into the uterus, the inner surface was found to be occupied by a granular ash-grey coloured deposit, apparently granulating in some parts. Not much putrefactive odour. The os was fissured bi-laterally, and the placental site occupied by an ash-grey diphtheritic-looking slough. Other organs healthy.

These three cases present a striking similarity in their symptoms and course. In regard to the onset of the disease in the cases of Mackenzie and Manzie, there was an abnormal rise of pulse and temperature on the day of delivery, and in the case of Fisher on the third day, following the rise in temperature and pulse, tenderness over the abdomen, accompanied by prostration and vomiting. The patient then assumed somewhat of a typhoid condition, with copious watery, offensive stools. The lochia were not suppressed, but from the foetor of the diarrhoea it was impossible to tell whether they were offensive or not.

One might say, then, that looking at the cases generally, the succession of symptoms was in the following order:—1st, Rise of temperature and pulse; 2nd, General discomfort and malaise; 3rd, Tenderness over hypogastrium and in both iliac regions; 4th, Prostration, and a general typhoid appearance; 5th, Vomiting; 6th, Copious watery stools. There was a want of correspondence between the pulse and temperature—the pulse being high, on some occasions rising to 150 or 160, while the temperature averaged 101°–102° F. This was particularly noticed in the cases of Mackenzie and Manzie. The duration of the disease was three, four, and six days respectively.

In the case of Eliza Mackenzie, no post-mortem examination was permitted. In those of Fisher and Manzie, the autopsy revealed a slight peritonitis, with a sloughy and diphtheritic condition of the uterus, especially at the site of the placenta and cervical tear.

Considering, first, the symptoms generally; secondly, the comparatively high pulse and low temperature, the sudden onset and rapid course, along with the morbid condition found at the post-mortem examination, it is impossible to arrive at any conclusion other than that the patients died from puerperal blood-poisoning. The difficulty, however, which at once meets us is to offer any feasible explanation of the source of the infection; for that the patients were infected subsequent to their admission to the hospital, and either during or immediately after their labour, seems beyond question, because during this same period over which my present Report extends, 117 women were delivered at their own homes by the same pupils and nurses, and no irregularity of the puerperium occurred. Further, the patients, more especially Manzie and Mackenzie, when admitted were apparently strong,

healthy, vigorous girls. It must, however, be borne in mind that there were conditions in these girls, although perhaps not marked to greater extent than many Maternity Hospital cases, which rendered them liable to septic infection. First of all, their nervous systems were depressed, all having been seduced and deserted under peculiarly distressing circumstances, particularly so in Fisher's case. Second, the labours, although not requiring instrumental interference, were all prolonged, more especially in the first stage, Mackenzie being forty-eight hours in labour before the full dilatation of the os. Third, they all presented, in the raw surfaces of perinæum, cervix, and placental sites, convenient channels for septic infection. Two facts, however, must be distinctly borne in mind: first, that the infection was not auto-genetic—*i.e.*, that the patients were not infected through any portions of retained placenta or blood-clot—and, second, that ordinary antiseptic precautions were carefully carried out, such as washing the hands in turpentine or carbolic lotion before examining, and making the examination with carbolised vaseline. Further, no students were allowed to come into Hospital who were attending dispensary practice or the dissecting or post-mortem rooms.

That there must have been some septic condition within the Hospital can hardly be doubted—first, from the fact that one case of septicæmia was recorded during the previous quarter; and, secondly, on account of the large number of peri- and para-metric complications which occurred during the earlier part of my own service.

In seeking, therefore, for a probable etiology, we are driven to an examination of the building itself. That the sanitary arrangements with regard to drainage, &c., were perfect, we are assured by the most competent sanitary authorities. One defect, however, in the Hospital, which I had already taken occasion to point out to the directors in my monthly report, and which has since been remedied, was the fact that the institution was built and put in active operation without either a mortuary or post-mortem room. The result was that all the autopsies were performed within the main building of the Hospital itself, and not only so, but on the ground floor, in a room below the main ward, from which the currents of air permeated the whole building. Now deaths, and at least one post-mortem examina-

tion, took place in Hospital during the warm, wet, summer weather, and it is not unreasonable to suppose that the septic germs may have had their origin in this way. Failing any other feasible explanation, the theory which I venture to advance is the following—viz., that as a result of the dead bodies remaining in this room until their interment, and of the post-mortem examination conducted there, the Hospital became septic. And although septic influences were apparently manifested in the frequent pelvic disturbances which occurred during the early weeks of August, it was only when specially predisposed persons, such as we have shown Mackenzie, Manzie, and Fisher to be, were delivered, that septicæmia was definitely and fatally developed. If further proof were wanting, it would be that since the closure of the Hospital and its complete disinfection, as well as the erection of a detached mortuary, no such cases have occurred.*

Before leaving the consideration of this question, it is desirable to make a brief allusion to the indications for treatment, and these, I think, may be summed in two words, stimulant and nutritive. Quinine and iron were freely administered, as well as aconite, but without any apparent benefit. When the septic nature of the disease was recognised, the question arose as to the propriety of washing out the uterus; but as there was no cessation of the lochia, nor any indications of retained matter within the uterine cavity, owing also to the rapidity of the symptoms, as well as the danger attending intra-uterine injections, it was decided that the antiseptic vaginal douche was sufficient. This was carried out carefully. The question of intra-uterine post-partum injection opens up a wide and interesting subject, which, however, is beyond the scope of my present Report.

From a review of the foregoing cases I am inclined to think, that whenever a well-marked case of septicæmia occurs in a lying-in hospital, the institution should be at once closed, and a thorough investigation and subsequent cleaning instituted. It is to me matter for regret, that on the occurrence of the first case of septicæmia I did not immediately decline to admit any more patients, for it appears almost beyond a doubt that had these three women been delivered at home they would still be alive.

* Since reading this communication, Professor Simpson has read his Report of the quarter succeeding mine, in which no deaths nor serious complications are recorded. This, I think, goes far to prove the correctness of the theory I advance.

EXTERN CASES.

There were 117 women delivered. Labours were classified :—Natural labours, 98 ; preternatural, 2 ; complex, 4 ; abortions, 6. Seven cases born before arrival. Of the 98 natural labours, the positions of the vertex were :—Left occipito-anterior, 78 ; right occipito-posterior, 10 ; right occipito-anterior, 3 ; left occipito-posterior, 0 ; position was unascertained in 7.

Preternatural.—Two breech cases :—Left sacro-anterior, 1 ; right sacro-posterior, 1.

Complex labours.—Twins, 3 ; placenta prævia, 1. Forceps were applied in two cases :—1 uterine inertia ; 1 placenta prævia.

Mortality.—Maternal, 2 :—1 ante-partum hæmorrhage ; 1 post-partum hæmorrhage. Fœtal, 7. Infantile, 1.

As a full report of the case of ante-partum hæmorrhage has already been published by my resident, Dr. Machattie, in the *Medical Times and Gazette*, I need not refer to it in detail.

The placenta prævia case I hope to make the subject of a special communication. In drawing this Report to a conclusion, I have to add that a patient whose perinæum had been torn to the verge of the anus, and which, although repaired at the time of rupture, refused to heal owing to her syphilitic condition, was readmitted. Two days after admission she developed symptoms of fever, and was sent to the Royal Infirmary. The case turned out to be one of typhus. A few days before my term of office expired, two of the nurses, who had been much overwrought, also developed fever, and were accordingly sent to the Royal Infirmary, where I regret to say they have both succumbed to typhus fever.

I cannot conclude this Report without expressing my high appreciation of the services of the resident physicians, Drs. Hurst and Machattie, during a somewhat trying quarter.

Dr. WILSON thanked Dr. Croom for his Report.

Dr. KEILLER made some remarks regarding the probable source of infection in the cases recorded. He thought the nurses were too numerous, and the sleeping arrangements for them were unsatisfactory.

Dr. M'RAILD made a few observations, and the discussion closed.

Obstetric Summary.

The Tocograph—an Application of the Graphic Method to Labour, by Dr. Poulet, of Lyons. The author had in 1875 invented an apparatus to register the intra-uterine pressure during labour: but he found that he had been anticipated by Schatz, of Leipzig, whose papers on this subject were published in 1872. In 1877, however, Dr. Poulet succeeded in improving his instrument so as to make it show separately the pressure exerted by the abdominal muscles and by the uterus. His instrument being capable of many applications, he thinks the name "tocograph" more suitable to it than that which Schatz applied to his "tokodynamometer." The apparatus consists of a vertical cylinder moved by clockwork, in front of which are two mercurial manometers, V-shaped tubes, so contrived that a float, following the movements of the mercury, can mark them on the cylinder. One of these manometers is in communication with an ampulla of caoutchouc carried between the ovum and the uterine wall. The other communicates with an ampulla carried into the rectum, above the greatest diameter of the foetal head. These ampullæ are connected with the manometers by flexible, but incompressible, tubes. The uterine manometer gives the total of the expulsive efforts, and is therefore the more important to study. It is found that the manometer shows a certain constant pressure, whether uterine contraction be present or not, which therefore is due to "uterine tonicity." This constant pressure is equal to a column of mercury thirty millimètres in height. The uterine contractions must be divided into two classes: those of the period of dilatation, and those of the period of expulsion. These two kinds of contraction are quite different in type. During those taking place before complete dilatation, the mercury rises gradually, tracing a line with very few irregularities, and, forming a blunt summit to the curve, descends to the level of simple tonicity. As dilatation advances, the curve becomes higher and more irregular; but when the cervix no longer offers an obstacle, the tracing shows sharp spurs which rise higher and higher with each pain. A remarkable thing is that the beginning of contraction is not immediately painful: it is possible by observing the mercury to warn the patient that she is going to feel pain. The maximum pressure

during the contractions of the first stage does not exceed forty millimètres. The maximum pressure is at the moment when delivery takes place. The author has not yet met with a pressure exceeding that of a column of mercury twenty-three centimètres high. Delivery is usually effected by a force equal to the pressure of sixteen or twenty centimètres of mercury : and this pressure only exists during the uterine contraction which accomplishes delivery. In his estimate of the force exerted during labour, the author finds himself closely in accord with Dr. Matthews Duncan. He calculates that this force never exceeds twenty-five kilogrammes. Dr. Duncan puts it at twenty kilogrammes ; while Professor Haughton reckons it at 250 kilos. The author reconciles these two widely-different statements by calculating that the pressure sustained by the whole inner superficies of the uterus would amount to about the amount estimated by Haughton ; but the whole of this force is not applied in an effective manner to the expulsion of the fœtus. Dr. Pouillet has made experiments on animals. The results show that the conditions of parturition in them are widely different from those in the human female. The tracings given by the manometer in connection with the ampulla in the rectum differ widely from those given by the uterine instrument. The force put forth by the abdominal muscles, instead of gradually rising to a summit and then slowly sinking, like that of the uterus, is suddenly exerted in its full force, then is suspended, then recommences with less power, then again interrupted, then a new but still less vigorous contraction. The tracing of uterine contraction resembles the outline of a mountain range, rising into peaks ; that of the abdomen muscular action is like a series of plateaux, progressively getting lower and lower. The author considers that the true use of the abdominal muscles in labour has not yet been shown. Their contraction only comes into play when the uterine orifice has been completely dilated. At this time the uterine action, if powerful and unopposed, would pull the neck of the womb up over the shoulders and body of the child, stretch the vagina, and possibly tear it at its junction with the cervix. But the abdominal muscles, pressing the uterus down towards the perinæum, prevent this danger. The author indicates some ways in which he thinks the tocograph may be of practical use. He finds that by injecting water or air into the caoutchouc ampulla in the uterus, he can determine at will uterine contractions. It may therefore be possible, if we induce labour by this means, by

injecting a measured quantity of water at measured intervals, to exactly imitate Nature, and produce pains of definite duration and frequency. He has also designed a girdle, firmly surrounding the whole abdomen and pelvis, beneath which water can be injected, at a measured pressure; and thus he hopes to use abdominal compression of measured force to assist labour. By the tocograph he also expects to be able to accurately investigate and classify those departures from the normal parturient process at present grouped under the generic name of uterine inertia; and also to exactly define the influence of drugs, such as ergot, chloroform, pilocarpin, &c., upon labour. Dr. Poulet has also devised a means of exactly measuring the force employed in delivery with forceps. Traction upon the forceps is made with a cord; and this cord is wound round a caoutchouc ball in such a manner that all pulling on the cord compresses the ball: the ball is filled with water, which is in communication with a column of mercury. He has also made experiments upon the dead fœtus and phantom, to measure the pressure within the fœtal skull during delivery with forceps. But upon these latter points his observations are not as yet numerous enough to give definite results.—(*Archives de Tocologie*, Feb. 1880.)

Gynæcic Summary.

Acute Menstrual Goitre.—Dr. E. H. Bennett narrates two cases in support and illustration of the statement of Petit, who, writing of the goitre of pregnancy and menstruation, says: "This disease sometimes occurs in girls who have not as yet menstruated, or in whom the natural evacuation is established with difficulty. . . . I have seen these tumours disappear on the establishment of the menstrual function." In one of Dr. Bennett's cases the tumour caused dyspnœa so great as to make tracheotomy necessary. The patient was aged sixteen, and had menstruated once only, this first catamenial flow being followed by six months' amenorrhœa. When the patient came to menstruate regularly, the tumour disappeared. The other patient was aged fifteen, had had one imperfect menstrual discharge, coincidently with which the goitre appeared. Eleven weeks afterwards, menstruation again took place, and it was expected that the tumour would disappear.

The next day, however, sudden dyspnœa came on, and in less than ten minutes the patient was dead.—(*Medical Press and Circular*, Feb. 11, 1880.)

Cases of Pelvic Inflammation.—Four cases of interest are reported in the *Boston Medical and Surgical Journal*, Jan. 22, 1880. In two there was serous effusion, which, after puncture, became purulent; in the other two suppuration had taken place before tapping. In each case the puncture was made through the vagina. In the same journal is reported a case of *shoulder presentation, with spontaneous evolution* in the seventh month.

Slight Lacerations of the Perinæum.—Dr. G. H. Lyman writes on this subject in the *Boston Medical and Surgical Journal*, Jan. 1, 1880. He, in this matter, follows the teaching of Emmet and of Reamy. He thinks that no laceration of the perinæum extending beyond the fourchette sufficiently to leave a recognisable cicatrix is unimportant, for no such lesion is without injurious results in many ways. He asks, how much of the perinæum may be weakened or destroyed without injurious results? His answer is, not a single line. The more common results which may ensue, and which are more or less likely in proportion to the extent of the laceration, are, primarily, septicæmia, and, secondarily, sterility, cystocele, rectocele, and prolapsus, with consequent derangements of the pelvic circulation, as shown by endometritis, cervicitis, cystitis, and leucorrhœa; imperfect coition, pruritus, vaginal flatus, and extensive reflex neuralgic irritation from the cicatrices. His object in writing is to call attention to what he believes to be a very serious mistake; the frequent neglect of obstetricians to inspect thoroughly the perinæum immediately after labour, and if there be found any laceration, however slight, to introduce deeply a sufficient number of sutures to retain the edges in contact, exclude the lochial discharges, and allow the parts to heal by first intention instead of by granulation.

A case of *Successful Removal of the Uterus and one Ovary for the Relief of a Subperitoneal Uterine Tumour* was brought before the Surgical Society of Ireland by Dr. W. Thornley Stoker. The tumour had been first noticed two years and a half before the operation. It was freely movable, lay chiefly to the left side of the abdomen, and was so elastic as to give a doubtful sensation of fluctuation both to the finger and when percussed. Even when the division of the abdominal wall had been completed and the surface of the growth laid bare, it was impossible, until an attempt

had been made to push a trocar into it, to say whether it was solid or fluid. The uterine cavity was of normal size. Every part of the uterus that could be felt by the finger in the rectum was of natural size and character. The vagina was not elongated, and nothing abnormal could be detected by digital examination either per rectum or per vaginam. These features made it very difficult to determine whether the tumour was uterine or ovarian. The tumour increased rapidly while the patient was under observation, ascites made its appearance, and the general health visibly declined. It was, therefore, thought proper to remove the growth. The operation was performed under thymol spray; but the anti-septic precautions were not completely carried out, and the wound did not remain aseptic. The operation was a very long and difficult one. The incision necessary extended from near the ensiform cartilage to the neighbourhood of the pubes. There were extensive adhesions on every side, the omentum giving especial trouble. The pedicle was formed of the cervix uteri: stout plaited silk was passed twice round it and tied tightly; but this was found insufficient to prevent the risk of hæmorrhage, and the pedicle was therefore transfixed with a strong pin, and another ligature put round it at the point of transfixion, and its ends twisted round the pin. The right ovary was removed with the tumour; the left did not present itself. A glass drainage-tube, four inches long, was secured in the lower angle of the wound so as to reach into the pelvis. Much blood was lost during the operation, and at its conclusion the patient was at the point of death from exhaustion. The pin with the slough of the pedicle separated on the eleventh day. The patient's recovery was interrupted by many untoward symptoms: excessive vomiting during the first eight days: aphthous ulceration of the mouth and fauces from the third to the eighth days: foetid vaginal discharge from the sixth day to about the fifteenth: much pain and sleeplessness. After the twentieth convalescence went on rapidly. The tumour weighed 14 lbs., and was a large myoma, occupying the upper and anterior wall of the uterus. Dr. Stoker considers that the case affords very substantial testimony to the value of the drainage-tube, without which he thinks the patient would have died.—(*Medical Press and Circular*, January 28, 1880.)

Pædiatric Summary.

M. Ch. Féré contributed to the Société Anatomique of Paris a note on *The Fungosities of the Umbilicus in Newly-born Children*. These growths are far from rare, but yet, from certain points of view, have been little studied. They generally show themselves during the four or five days following the fall of the cord, and rapidly develop. They present themselves under several forms. They are often fine, almost perfectly cylindrical projections, only two or three millimeters in thickness, but possibly attaining the length of a centimeter or more; they then project beyond the level of the abdominal wall, but they are only well seen on unfolding the umbilical depression. This cylindrical appearance has led to the view that they may be formed by a vessel, either a vein or an artery, which has not been divided at the same level as the rest of the cord. Yet more often these tumours look like pimples, sometimes sessile, sometimes pedunculated, more or less regularly rounded, rosy, of a fungous appearance, rarely bleeding; if they are small they are only noticed if one is warned of their presence by prolonged suppuration, and unfolds the umbilicus; sometimes they reach a considerable size, and it has even been possible to compare them to small cherries (Simpson); most commonly they are about the size of a small pea. They seem not to have any tendency to spontaneous cure. Astley Cooper has observed one which he attributed to the remains of the cord in a child seven years old; although it bled, and was sometimes painful after irritation, it might, he says, be at first mistaken for an umbilical hernia. The cylindrical vegetations can be destroyed by cutting them off, or by ligature; the operation does not provoke hæmorrhage, and the tumour is not reproduced. The sessile tumours are easily repressed by cauterizations with nitrate of silver; it is not prudent to destroy them by more energetic measures without the most minute precautions; in one case, after destruction by caustic, fluid ran out, there existed under the fungous cicatrix, an entero-umbilical diverticulum which had been opened. The histological structure of these tumours is little known. Kustner has distinguished three varieties: 1, the granuloma of Virchow, which is the most common form; 2, the vascular fungus (myxosarcoma telangiectasique de Virchow) more rare; and, 3, adenoma. This author has also found in some of these tumours smooth muscular fibre, and all the elements of intestinal mucous membrane. M. Féré has examined two specimens. One

was of the cylindrical kind, and was cut off with scissors eleven days after birth. Its tissue had all the histological characters of a round-celled sarcoma. It was covered by a layer of epidermis. The other was of a cylindro-conical form, and of the size of a grain of wheat. It was cut off by a ligature put round its base. Histologically it was composed of a sarcomatous tissue more advanced than the preceding one, in parts the tissue was even fibrous; the vessels were smaller than in the first case, a fine layer of epidermis covered its surface. It was histologically a sarcoma with a tendency to the formation of fibrous tissue. It may therefore be considered as an example of a neoplastic process which, while presenting all the histological characters of sarcomatous tissue, yet has none of the clinical characters ordinarily associated with such growths.—(*Progrès Médicale*, Dec. 20, 1879.)

PAMPHLETS RECEIVED.

“Valedictory Address to the Graduating Class of the Medical Department of the University of California.” By W. F. McNutt, M.D., &c., Professor of Principles and Practice of Medicine, University of California. (Reprinted from the *Western Lancet*, Dec. 1879.)

“On Rectal Alimentation and the Induction of Abortion for the Relief of the Obstinate Vomiting of Pregnancy.” By William Warren Potter, M.D., Batavia, New York. (Reprinted from the *American Journal of Obstetrics*, Jan. 1880.)

“Malignant Degeneration of a Fibroid Tumour of the Uterus: Large False Aneurism in the Substance of the Growth.” By Drs. Albert N. Blodgett and Clifton E. Wing, Boston, Mass. (Reprinted from the *New York Medical Record*, Jan. 3rd, 1880.)

“Die Ueberwanderung der Eier: Eine experimentelle Studie.” Von Dr. G. Leopold, Privat Docent der Gynäkologie in Leipzig. (Separatabdruck aus dem “Archiv für Gynäkologie,” Band xvi., Heft i.)

“Ovariectomy, Suivie de Succès, quelques Remarques sur les Indications de l’Opération.” Par M. le Dr. G. Eustache, Professeur de Clinique Chirurgicale à la Faculté Libre de Médecine de Lille, &c. Paris: J. B. Baillière et Fils. 1879.

“Mémoire sur un Fœtus Dérencéphale.” Par le Dr. G. Eustache, Professeur, &c. Paris: J. B. Baillière et Fils. 1879.

Communications received from J. F. Horne, Esq., Barnsley; Dr. J. Halliday Croom, Edinburgh; Dr. J. Matthews Duncan, London; R. W. Parker, Esq., London.

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THE
OBSTETRICAL JOURNAL
OF
GREAT BRITAIN AND IRELAND.

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No. LXXXVI.—APRIL 15, 1880.  
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Original Communications.

TWO CASES OF UNUSUAL PELVIC DEFORMITY.

By ALFRED LEWIS GALABIN, M.D., F.R.C.P.*

Assistant Obstetric Physician and Joint Lecturer on Obstetrics to Guy's Hospital,
Examiner in Obstetrics to the University of Cambridge.

IN both of the following cases pelvic deformity was extreme in degree, and appeared to have been produced by an unusual mechanism. In both, the pelvic outlet was more affected than the inlet; but, in one, the transverse, in the other, the antero-posterior diameter was especially contracted.

CASE I.—Louisa H———was sent into Guy's Hospital under my care on April 24, 1877, with a message from her medical man stating that the case was one in which he thought that Cæsarian section would be found necessary.

She was then thirty-three years old, had been married nine months, and considered herself eight and a half months pregnant. She first menstruated at the age of fourteen, and had been regular up to the time of her pregnancy. Her height was four feet three and a half inches, and she had extreme lateral curvature of the spine, the anterior faces of the dorsal vertebræ looking toward the left, of the lumbar vertebræ toward the right. There was also extreme kyphosis in the dorsal and lordosis in the lumbar region.

The measurements of the pelvis were as follows :—

* Read at the Hunterian Society.

External.

Between ant. sup. spines of ilia	9 inches
„ crests of ilia	10 „
„ tubera ischii (most prominent points)	2 $\frac{3}{4}$ „
External conjugate diameter	6 „

Internal.

Diagonal conjugate diameter	3 $\frac{1}{2}$ inches
Transverse diameter between internal surfaces of tubera ischii	1 $\frac{3}{4}$ „

The inclination of the pelvic brim was abnormally great, as is usual in lordosis of the lumbar vertebræ, and the sacrum was extremely undeveloped, the measurement from the spine of the last lumbar vertebra to the tip of the coccyx being only three inches, or barely half the normal measurement. The effect of this was that the tip of the coccyx was very high up in relation to the tubera ischii and the pubes, so that a great part of the space generally occupied by sacrum and coccyx was covered only by soft parts, through which the finger in the vagina could be felt by the hand applied between the buttocks. To the space for dilatation thus left posteriorly was probably due the possibility of effecting delivery through the pelvic outlet. Vaginal examination showed that the pelvis appeared to be narrowed transversely at the inlet as well as at the outlet, although to a less extreme degree.

The longitudinal space in the abdomen, between the sternum and edges of the ribs above and the pubes below, was very small. The child therefore lay in the uterus transversely, the head towards the right, there being no room for it in the usual position. By external manipulation it was easy to bring the head over the pelvic brim. The breech then came almost directly forward, so that the long axis of the child was at right angles to that of the mother's trunk. The foetus, however, very quickly returned to its former transverse position.

The patient's pulse was always rapid, varying in rate from 100 to 120. A sphygmographic tracing showed that it had a marked and pointed predicrotic, and but a slight dicrotic wave. This form of pulse is found in acute Bright's disease, and generally indicates high arterial tension. An approximation to the same form, however, appears to occur normally in children and dwarfs, and, in them, seems to be due simply to the short distance between the heart and the radial artery.

The patient declared that her deformity had existed ever since she could remember, but that she had always been able to walk. No rachitic curvature nor enlarged epiphyses were found in the extremities. The left leg was much thinner than the right, but the patient said that they were equally strong. All the costal cartilages were thickened, and the upper part of the chest was pigeon-breasted.

Some doubt was felt whether it would be possible to introduce the arm through a pelvic outlet having an internal transverse diameter of only one and three-quarter inches between the tubera ischii for the purpose of turning, in case it proved necessary to perform that operation during labour. After consultation with Dr. Braxton Hicks, however, it was decided to induce labour as soon as possible and perform craniotomy, rather than to have recourse to laparo-elytrotomy or Cæsarian section.

On May 5th an elastic bougie was introduced between the posterior uterine wall and the membranes. Pains came on during the night, and at 5 A.M. on the 6th the membranes ruptured. After this the position of the child was rectified by external manipulation; and it was found possible to keep it in place while the patient remained on her left side.

The os was fairly dilated at about 11, the head remaining high above the brim. In the hope of its descending a little more within reach, interference was delayed until 3 P.M., the patient being kept partially under the influence of chloroform. No advance, however, was made. The head was then perforated, and an attempt made to apply the cephalotribe. This proved ineffectual, chiefly owing to the transverse contraction at the outlet. Dr. Barnes' craniotomy forceps were then fixed in the aperture in the skull, and strong traction made. The head then became gradually elongated into a conical shape and descended into the pelvis, some projecting spicules of bone being from time to time snapped off by bone forceps. On its becoming again arrested on reaching the outlet, the craniotomy forceps were removed, and the cephalotribe applied. After crushing, the head, flattened in the transverse diameter of the pelvis, was successfully brought through the pelvic outlet. The soft parts were strained very far back into the posterior vacant space, but no rupture of the perineum of any moment took place. The placenta was expelled naturally. The cavity of the uterus was afterwards washed out with carbolic solution. The operation had lasted an hour and a half.

The patient suffered but little febrile disturbance until the evening of the sixth day, May 11th. She then complained of great pain in the breasts and headache, and the temperature rose at 8 P.M. to $103^{\circ}7$, the highest point reached. Quinine was then given in four grain doses every four hours, and the breasts drawn by the breast pump, whereby much relief was afforded. Next day the temperature had fallen to 102° , but the abdomen was slightly tender, and the temperature did not become quite normal until the 16th, after which the patient rapidly recovered.

In reference to the efficacy of antiseptics, it may be of interest to mention that within about an hour before operating on this patient I was obliged to perform version in a case of placenta prævia, in which, after plugging of the vagina, clots had decomposed within the uterus. This patient had already a temperature of 105° , and symptoms of acute septicæmia, which ultimately ended in diffuse pyæmia and death after a rather protracted illness. Antiseptics were of course used with the utmost diligence, but the discharge was so foul and the intervening time so short, that it was hardly possible to eradicate thoroughly the smell from the deeper layers of the epithelium of the hand which had been soaked in it. I therefore watched with some anxiety the course of the present case. The patient, however, did not seem to have more disturbance than might have been anticipated after so severe an operation, and never had any symptoms resembling those of serious septic poisoning.

As it was obviously impossible that this patient could ever bear a living child, and as it was pretty evident that a recommendation of total sexual abstinence would either not be carried out, or would lead to domestic misery or separation, the Obstetric Resident recommended her to use a vaginal injection of water after coitus as a prophylactic against pregnancy. She appeared again, however, after no long interval, on March 4th, 1878, being again pregnant about four months. It was resolved to induce abortion, and this was done by puncturing the membranes before the conclusion of the fifth month of pregnancy. On this occasion the foetal head descended, by the natural efforts, into the cavity of the pelvis, but became arrested on getting near the outlet. Even at this early stage of pregnancy it was found necessary to perforate the head and crush it with the cephalotribe before it could be extracted. The patient recovered without any serious symptoms, and she has not, since that time, again appeared;

whether or not this may be due to any method of prophylaxis.

The general transverse narrowing of the pelvis in this patient was probably due to the sacrum having been undeveloped in breadth as well as in length. Possibly also there may have been ankylosis of both sacro-iliac synchondroses. Such a relative transverse contraction is comparatively common in cases of kyphosis in the lumbar region. It is rare when, as in the present case, there is lordosis of the lumbar region, with the consequent exaggeration of the pelvic obliquity, since in such cases relative antero-posterior contraction is generally produced, because the weight of the body acts through the sacrum in a direction more nearly perpendicular than usual to the anterior surface of that bone. It is to be noted that the transverse measurements of the false pelvis gave little indication of the transverse contraction of the true pelvis.

I cannot fully account for the transverse contraction having affected especially the outlet of the pelvis. This may, however, have been connected with the fact that the patient was able to stand and walk in early life, when the bones were probably unduly soft, so that the inward pressure on the pelvis of the heads of the femurs had an important influence. For although the weight of the body must be transmitted, in general, to the heads of the femurs in vertical lines, and therefore the reacting pressures on the pelvis must also be vertical—a fact which is often overlooked—yet the muscles passing from the leg to the pelvis produce a component of pressure acting inward, and these muscles are, of course, more in action during standing or walking than in a sitting or lying position.

CASE II.—Mrs. R——, aged thirty-three, first consulted me in June, 1877. She was then pregnant for the thirteenth time, the first confinement having taken place twelve and a half years previously, and the child having been still-born. In most, if not in all, of her subsequent pregnancies, labour was induced prematurely. On one occasion only, about seven and a half years previously, a child was born alive, and lived to the age of seven years. According to the patient's description, most of the deliveries had been followed by more or less inflammation, and at least two of them by pelvic abscess. In her more recent pregnancies she had been under the care of a distinguished obstetric physician. On the last three occasions, he had found it necessary to induce abortion

before the child was viable. According to her account, the foetus did not, on these occasions, come away till at least a week after the commencement of induction, but her recovery afterwards was more favourable than before. Recently she had suffered severely from vomiting during her pregnancies.

She stated that she was always weak during childhood, and used at that time to wear irons to straighten her legs. For some years, however, she had been unable to stand or walk, even when not pregnant, and was generally in a sitting or reclining position.

The pelvic measurements were found to be the following :—

External.

Between ant. sup. spines of ilia	8 $\frac{1}{4}$ inches
„ crests of ilia	9 $\frac{3}{4}$ inches
External conjugate diameter	6 $\frac{3}{4}$ inches

On vaginal examination marked antero-posterior contraction of the outlet of the pelvis was at once noted. The whole of the lower part of sacrum was flat and approximated to the pubes, and the diameter measured from the apex of the pubic arch to the lower extremity of the sacrum was only two and three-eighth inches. The promontory of the sacrum was relatively high up, owing to exaggerated obliquity of the pelvic brim, but the diagonal conjugate diameter did not appear to be more than three and a half inches.

The patient was short, and the limbs small, but without any rachitic curves. There was no apparent deformity of the back. The pelvic bones were all tender on pressure, and the pain felt on attempting to stand appeared to be referred to the bones. The thighs could be flexed and extended freely, and there was no disease nor displacement of the hip joints.

The patient was then about four and a half months pregnant, and was vomiting almost everything she took. She was much reduced on this account and the pulse was more than 120. I therefore thought it desirable not to delay the induction of abortion, as it was evident that no living and viable child could pass through the pelvic outlet.

An attempt was first made to puncture the ovum with a sound, but the cervix being very high up, narrow, and apparently elongated, no liquor amnii escaped. A sponge tent was therefore inserted into the cervix. The next morning, the cervix was found moderately dilated, but the ovum could not be reached. The

vomiting had now entirely ceased, and did not recur, the patient being able to take food freely. An elastic bougie was now passed up several inches into the uterus, and left in place. Twelve hours later the cervix had somewhat contracted again, and no pains had commenced, although the bougie remained in place. Two laminaria tents were then placed in the cervix by the side of the bougie, and ergot administered internally. On the third day the cervix was more dilated, and some hæmorrhage had taken place, but there were still no pains. Four laminaria tents were inserted, and, on account of the hæmorrhage, an air-ball pessary was placed in the vagina and moderately distended. On the morning of the fourth day some liquor amnii escaped. About twelve hours later the foetus was found to have been partially expelled through the cervix, and was extracted. The placenta proved to be firmly adherent, and as the patient absolutely refused to take an anæsthetic, and was at the same time excessively hyperæsthetic and intolerant of any manipulation, its removal gave much trouble. It was eventually got away piecemeal, by introducing half the hand into the vagina and one finger into the uterus.

The constitutional condition appeared rather to improve than to get worse during these manipulations extending over four days; a circumstance which is probably to be explained by the cessation of the vomiting. No pelvic inflammation or other serious symptoms followed delivery, and the patient soon regained her usual health.

As this patient appeared to be incurring increased danger in each successive pregnancy, and as it was certain in this case, as in the former one, that the recommendation of absolute marital abstinence would be useless, I advised the use of a vaginal injection of water after coitus, in order to avoid pregnancy. I had, however, very little expectation, since the woman was so complete a cripple, that it would be used to any purpose.

She did not, however, become pregnant again for about two years, previous pregnancies having followed at intervals, on an average, of only about five months after delivery. I was summoned to see her again on September 14, 1879. She was then in the fifth month of pregnancy, the last period having ceased about April 28. She was again vomiting everything she took, and the constitutional condition was more severe than on the previous occasion, the pulse being 130, and temperature 100°·8 F.

She had been completely confined to her bed for some weeks. No notable alteration was found in the pelvic measurements.

Medicine being found ineffectual to relieve the vomiting, the induction of abortion was commenced on September 21st. I pierced the ovum with a sound, allowing some of the liquor amnii to escape. On the morning of the 22nd the os was found quite undilated, and there was no sign of uterine action. She was still vomiting everything as before. A sponge tent was then introduced into the cervix.

On the evening of the 22nd the cervix was found somewhat dilated by the tent. The ovum could just be reached by the finger. Vomiting had completely ceased, as on the former occasion, after the use of a sponge tent. The tent was then removed, and the case left to Nature.

At 3 P.M. on the 23rd it was found that some more liquor amnii had escaped, but the cervix had somewhat closed up again. No labour pains had been felt. There had been some recurrence of vomiting, and the patient's condition appeared to be very serious, as she had had marked rigors and the pulse was 160, temperature 100°·7 F. Three laminaria tents were then introduced into the cervix, and two of Savory and Moore's gelatine discs of ergotin were injected subcutaneously.

At 9 P.M. it was found that vigorous pains had come on, and that the foetus was coming down. About an hour later it was partially expelled through the os, and was then extracted. No hæmorrhage followed, and the cervix appeared almost immediately to contract up. The patient again refused an anæsthetic, and her resistance defeated an attempt to pass the whole hand into the vagina, which was small and little dilated. With half the hand in the vagina, I could not succeed in reaching the placenta, the uterus being very high up in the abdomen. The placenta was, therefore, left alone for twelve hours, in the hope that the patient would then submit to an anæsthetic.

On the morning of the 24th, she appeared to be very ill. The tongue was dry, the pulse still 160, and there was pain and tenderness of the abdomen. As she still refused the anæsthetic, I succeeded in passing the whole hand into the vagina, and peeled away in fragments the placenta which was firmly and universally adherent. Violent vomiting took place immediately upon the operation, but did not again recur. By the evening the pulse had fallen to 140, temperature to 99°·8, though there was

still pain and tenderness of the abdomen. On the 27th, these symptoms had subsided; the pulse was 108, temperature $99^{\circ}4$; and the discharge was no longer sanguineous. After this she rapidly became convalescent.

The fact that this patient had borne a child which survived about 1869, and that in 1877 the pelvic outlet was found to have an antero-posterior diameter of only $2\frac{3}{8}$ inches is a proof that the pelvic deformity was progressive. This circumstance, in conjunction with the tenderness of the pelvic bones, appeared to indicate that her disease was probably a slight degree of mollities ossium, although there was no tendency to a rostrated form of pelvis. The absence of such rostration, and the contraction of the antero-posterior diameter at the outlet, may be connected with the fact that the patient was always sitting or reclining and never standing or walking. This would lead to a pressure inwards of the sacrum and coccyx, with comparatively little inward pressure of the heads of the femurs, owing to the inaction of the muscles of the legs. The comparatively wide transverse diameter at the outlet is accounted for in the same way. For it is well known that the upward pressure on the tubera ischii, caused by constant sitting, tends to produce relative transverse wideness of the pelvic outlet, as is seen in the rachitic pelvis. This is due to the fact that the tubera ischii are further from the middle line than the sacro-iliac synchondrosis, and therefore an upward pressure through them tends to rotate the lower part of each innominate bone outward upon an antero-posterior axis passing through the sacro-iliac joint.

The unquenchable fertility of this patient, notwithstanding repeated attacks of pelvic inflammation, is remarkable, especially as the firm adhesion of the placenta on each occasion appears to indicate some abnormal condition of the uterus. Remarkable difficulty was also found in inducing the uterus to expel its contents on many occasions. I am inclined to think that this, as well as the unusually high position of the organ, may have been due to the existence of old adhesions.

Another point of interest is the marked effect which, on two occasions, was produced upon the vomiting by the use of a sponge tent, while no uterine action was excited. This is to be compared with the similar result which has been attained by Dr. Copeman's plan of dilating the cervix with the index finger in the case of uncontrollable vomiting in pregnancy. The

present case would seem to suggest the idea that, in some very urgent cases, the use of a sponge tent might arrest the vomiting, without necessarily inducing abortion.

A SECOND SUCCESSFUL CASE OF GASTROTOMY IN EXTRA-UTERINE PREGNANCY.*

By LAWSON TAIT, F.R.C.S., &c.

IN 1873 I communicated to the Society the details of my first case of this operation, and I venture to lay before them the details of the second, chiefly because the treatment of this lesion which I have adopted is by no means fully accepted by the profession, and every contribution on the subject becomes therefore important.

In my previous communication I mentioned a third case in which I had operated, but I omitted to mention that in that case the section was vaginal. This, and the other fact mentioned, that I removed the placenta, were undoubtedly the cause of the fatal issue, and the lesson taught by that failure was to me important, because it showed the propriety of operating by median abdominal section, and the absolute necessity of leaving the placenta untouched. Both these conclusions are emphasised by the facts I have now to detail of my last case.

The patient was a worn-down, emaciated, and very anæmic married woman, aged 30, and was seen for the first time on March 1st of this year. She had been married three years, had not had any children, and her menstrual periods had been perfectly regular until last September, when they ceased suddenly; the abdomen enlarged, the breasts got full, and she thought herself pregnant. She had been under a variety of medical treatment during the early part of the year. I found her suffering from a large tumour, reaching well above the umbilicus, fixed in the pelvis, extremely painful, and presenting throughout a feeling of uniform solidity. I admitted her to the hospital on March 3rd, and on the 6th I examined her fully under ether. The uterus was of normal size, and was bent backwards below the tumour, so that the latter was applied to and adherent to the anterior uterine wall. The tumour seemed to run on to the pelvic walls, as does any large effusion into the broad ligament, on both sides. No fluctuation could be

* Read before the Royal Medical and Chirurgical Society.

felt, nor any masses more solid than the whole of the tumour. The whole mass was very slightly movable. The measurements were as follows, and, for the sake of contrast, I give them of a later examination as well.

Measurement in Inches.	March 6.	March 29.
Greatest girth	29 $\frac{1}{2}$	29
Ensiform cart. to pubis	13	12 $\frac{1}{2}$
Position of umbilicus from ensiform cart. .	7 $\frac{1}{2}$	6 $\frac{1}{2}$
Umbilicus to right crest of ilium	6	6
Ditto to left crest	6 $\frac{1}{2}$	7

The diagnosis I noted from this examination was that of hæmatocele, and a little more of the history given by the patient subsequently tended to confirm it. She said that at the beginning of November she had sudden and severe pain whilst at work. It cramped her and bent her double. It was seated chiefly in the right groin, and it passed off in a few days, but returned in the middle of January, and has continued ever since. It seemed to me therefore that there probably had been two pelvic effusions of blood, the second and more severe in January. I was, however, at a loss to account for the severe and persistent pain in the tumour, this being an unusual condition in simple hæmatocele. I examined her under ether again on March 26th, and found things just as in the previous examination, the only difference being a diminution of the measurements, and I saw again in that a confirmation of my diagnosis of hæmatocele.

During April I was from home, and on my return on the 28th I found that the patient's condition had suddenly become much worse three or four days before, and that the tumour had increased to nearly double its original size, the pain also having increased. This increase of size was clearly due to the sudden formation of a cyst on the upper surface of the tumour, placed upon the original mass, something in form like the bell of a medusa. In this cyst some solid fluctuation was perceptible, and from this feeling I diagnosed a further effusion of blood. I determined to open the abdomen and see if anything could be done, and this I did with full antiseptic precautions on April 30th.

Making an incision from the umbilicus downwards for about four inches I opened a cyst full of fresh blood clot, the floor of

the cyst being arched upwards, and formed evidently by the old tumour. With my finger I cautiously explored this cyst, but could find nothing which cast further light on the case, and, fearing that it was something of a malignant nature, I closed the wound. The peritonæum was not opened.

She rallied readily and completely from the operation, but her pain was as intense as ever, and the opiates in various forms which she had been taking in large doses all along had to be increased in their quantities.

On May 2nd some red serous fluid began to ooze from the wound, and this continued at intervals till the 4th, when she had a severe rigor. The most complete antiseptic precautions had been taken in every detail, yet on the 5th it was clear that the cyst cavity was suppurating, and I therefore removed two of the lower stitches. On the 6th and 7th several large clots, smelling very offensively, came out of the wound, and it was directed that the cavity should be very cautiously syringed out with an antiseptic solution of phenol twice daily. On the 15th all the remaining stitches were removed, and the wound gaped immediately. The discharge was very offensive, the patient was extremely ill, and it will be seen from her temperature chart that she was running the gauntlet of severe surgical fever.

On May 16th my attention was drawn by the house-surgeon to a hard mass under the left edge of the wound. This I found to be a piece of bone, and on removing it I found it to be a foetal skull bone, indicating about the third or fourth month of development. On groping about in the cyst cavity I laid hold of a mass which I could feel to be the rest of the foetal head, and by gentle traction I drew the foetus to which it belonged out through a hole in the original tumour, which led into the cyst which I had opened, about three inches from the opening I had made. I did not venture to make any effort to determine the site of the placenta, but I believe it was in front, and that the foetus came up from behind its upper margin. From this margin was probably derived the hæmorrhage which formed the blood cyst into which I opened.

The foetus was macerated and rotten, and appears not to be more than three months old.

On the 17th eight or nine inches of the umbilical cord came away, and at night, when the cavity was being syringed, about half a pint of bright arterial blood was lost. On the morning of

the 18th the patient was so anæmic and exhausted that she seemed to be dying, and I gave directions that the wound was to be left entirely alone, and nothing done to it beyond cleansing it from discharge.

During the next eight days the patient was so extremely ill that I daily expected to find her dead at my morning visit. The hæmorrhage did not recur, however, and pieces of placenta began to come away along with a large quantity of semi-purulent fœtid discharge. About the 26th she began to rally, and on the 29th a large piece of placenta was extruded. After this the discharge ceased, she began to take her food well, the wound became healthy, and on June 10th she was so well as to get up. The discharge at that time was very small in quantity and perfectly healthy, the wound was rapidly contracting, and the patient anxious to get home.

In this instance I did not succeed in making a correct diagnosis, whilst in my previous cases I was able to diagnose the condition with absolute exactness. My diagnosis was, however, approximately correct, in so far that the lesion was one of the forms of hæmatocele. Looking back on the case now, however, I do not see that I could have made any diagnosis more accurate in detail. As to my treatment by abdominal section, that of course was accidentally the means of saving my patient. There was, however, sufficient purpose in it to claim for the proceeding a justification.

It is my rule always to open the abdomen in cases where there is doubt about the nature of a tumour, and where that doubt involves the possibility of there being some condition which may possibly be benefited by operative proceedings.

Out of a large number of such exploratory operations, between fifty and sixty, I have not met with an instance where I had reason to regret the proceedings, whilst in many, and the present is one, I have had abundant cause to be grateful for the result.

SHORT PAPERS ON SOME COMMON DISEASES IN
YOUNG CHILDREN.

By ROBERT WILLIAM PARKER,
Assistant-Surgeon, East London Hospital for Children.

I. NOCTURNAL INCONTINENCE.

NOCTURNAL incontinence is a functional rather than an organic disease, for in the most typical and obstinate cases there is never any appreciable pathological change to account for it. It has been known from the earliest times; it seems to occur in all countries and among all classes. It is more common among boys than girls, and although it is mostly found between the ages of four and ten years, it does occur in older children, persisting up to fifteen or sixteen years of age, and even beyond.

There are many facts in the history of the complaint which seem to suggest that it is due to some altered nerve relationship between the detrusor urinæ muscle and the sphincter vesicæ. Dittel believes that in young children the less developed condition of the prostate which surrounds the neck of the bladder may have something to do with it. Lebert says a local atony associated with increased sensitiveness of the neck of the bladder is the cause.

All we know for certain concerning the physiology of micturition is that it is a reflex action, which, however, is partially under the control of the will. When this reflex action is unduly active during the day, it can for a while be controlled by the will; but during the night, while the will is asleep, there is nothing to control it, and hence occasional incontinence. In Foster's "Physiology" we find it stated that "the so-called nocturnal incontinence is in reality an easily excited and frequently repeated reflex action." This is really all that is known about the pathology, or rather the physiology, of pure uncomplicated nocturnal incontinence of urine.

Among the *predisposing causes*, one of the oldest to which reference is made is very profound sleep. It is well known that sleep varies in different individuals, and hence the common expressions of "light sleepers" and "heavy sleepers." It is thought that children, who sleep very profoundly, do not answer to the calls which Nature makes; nor is this entirely confined to children, for

adults occasionally, either after a debauch or excessive fatigue, are known to pass urine unconsciously into bed during the night. As a rule this does not take place until previous warnings, which have failed to waken the sleeper, have completely tired out the sphincter vesicæ. Then they generally dream of being for a long time unable to find a convenient place for the purpose, and having succeeded at last, without waking up, allow the urine to escape. Such cases will have come within the experience of every one ; and although we cannot get any reliable information from children as to whether this unconscious cerebation takes place previous to the act of micturating, it is not unfair to imagine that it often does occur.

Fear or indolence may be a cause. Some children are naturally timid, and dare not get up in the night ; others again are indolent, and will not get up.

Often, however, the incontinence is due to irritation of neighbouring organs or parts, and its removal is then quickly followed by a cessation of the incontinence. It may be well just to refer to some of these extraneous causes : in doing so, I will strictly confine myself to such as have come under my own observation sufficiently often to prove—to my thinking at least—that the association is something more than coincidence.

Of this class of causes *preputial irritation* is by far the most common. On examination the prepuce will be found to have a contracted orifice perhaps, and to be more or less adherent to the glans penis. In other cases without adhesion, there is a collection of secretion beneath it in the coronal sulcus. These preputial irregularities give rise to other symptoms than nocturnal incontinence. They cause diurnal incontinence ; that is, they give rise to an irritability of the bladder, which leads to frequent micturition and to incontinence if anything prevent the immediate gratification of the desire to micturate. Partial erection of the penis is of frequent occurrence in such cases, and this leads to the idea of a voluntary masturbation, when such is really not the case.

Irritation within the hip joint is another cause of reflex incontinence, which shows itself chiefly at night. I have now seen many such cases. In a few this incontinence has been almost the first symptom which has attracted attention ; it seems to come within the same category as the involuntary startings in the sleep, which are so well known in connection with hip disease.

Disease of the Spine, when situated in the lower dorsal or in the lumbar region, not infrequently gives rise to urinary irritation, which practically amounts to incontinence.

Calculus in the Kidney, or ureters, or in the bladder, is another cause acting much in the same way as those previously mentioned; while the calculus is on its way to the bladder, the incontinence is purely reflex; but after the stone has reached the bladder it may act mechanically. Thus, in a case which I recently observed, the child had the greatest difficulty to pass water during the day, when standing; but at night in bed passed large quantities of urine without pain or difficulty. It would seem probable, in this case, that the stone rolled away from the neck of the bladder as the child lay in bed, and that then the over-filled bladder quickly emptied itself.

Worms in the Rectum or Vagina.—Many cases of incontinence due to this cause have come under my notice. The oxyuris vermicularis—the common thread-worm—sometimes infests the rectum to an enormous extent, and it finds its way also into the vagina, causing great irritation. In any given case it is well therefore to inquire as to this cause.

Conditions of Urine seem to be the cause in a few cases.

Peculiarities in the drinking-water, or *dict*, are sometimes responsible. Thus children—in whom perhaps the predisposition already exists—accustomed to a soft water become liable to incontinence while drinking a very hard, chalky water.

Treatment.—Whether this disorder has, or has not, an appreciable cause, *a child ought never to be punished*; still less ought it to be laughed at and held up to ridicule. I have come to the conclusion that punishments tend to confirm and strengthen the habit rather than to cure it.

If any of the causes to which reference has been made, or others, are present, our first care must naturally be their removal. If a contracted prepuce is the cause, it must be either removed or dilated. I figured in the *British Medical Journal* a few weeks ago a little dilator which I have found useful for this purpose: in the course of half an hour the contracted orifice of a prepuce can be dilated sufficiently to allow of its being completely retracted; the glans may then be cleansed, and afterwards smeared with cold cream or a little sweet oil, and the prepuce replaced. The operation is not a painful one; but chloroform can be used if it be found necessary or desirable.

When there is disease in the hip-joint or in the spine we must direct our chief attention to these parts, for the incontinence will quickly disappear when the irritation producing it is removed.

In the case of stone in the ureter, or pelvis of kidney, sedatives will frequently be found beneficial. Tincture of belladonna, with bicarbonate of potash and infusion of buchu, is an excellent mixture. If there be a stone in the bladder it must of course be removed.

If the rectum is found to contain worms they must be got rid of. Enemata of warm salt-water will be found a simple but efficient means of accomplishing this. In short, remove any obvious cause which can be found, or may be suspected.

There still remain for consideration the cases in which no immediate cause can be found, and these cases are the most obstinate and the most difficult to influence. In the first place our attention must be directed to the general health of the patient, for, as a rule, it is below par—but whether as a cause or a consequence I could not say. Quinine and iron, bark or strychnia, must be given according to circumstances, and combined with them, or separately, belladonna in some form or other. Trousseau used to give the extract in the form of a pill; others prefer the tincture. In either case the drug must be persevered with for a considerable time. Large doses may be given if the quantity be increased gradually. I have known quite young children take 30 minims of the tincture three or four times a day without any toxic effects. I must say that of all drugs I believe belladonna to be the most useful in such cases, and before giving it up as a failure in any case, I would push it to its extreme limit, carefully watching the case, and giving the doses at shorter intervals rather than in larger quantities.

Baths will also be found useful. We may commence by ordering a tepid sitz bath every night just before going to bed. In such cases the body must be well dried afterwards to thoroughly re-establish circulation. In some cases a cold sponge bath in the morning is more efficacious; especially bathing the loins, and using a rough towel afterwards, or a cold douche, directed on to the spine, may be tried.

Counter-irritants applied over the lumbar part of the spine have sometimes effected a cure when other and milder measures seemed to have failed.

Lastly, electricity, either to the rectum or to the vagina, may be

tried in very obstinate cases. A weak current must be used, as these parts are sensitive.

In almost all cases change of air, to the seaside if possible, will be found beneficial by strengthening the constitution and improving the general health. Care must be exercised with the diet; late suppers must be strenuously forbidden, and little or no fluid should be taken for two or three hours before bedtime. It is a good practice also to wake up children troubled with this disease every two or three hours, and make them get out of bed. Great perseverance will be required: all hastiness must be avoided, while firmness is, however, required.

ON DISORDERS OF MICTURITION IN WOMEN.*

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IN this Paper I shall briefly discuss the more important disorders of micturition under the headings of—

- (1.) Retention of urine.
- (2.) Incontinence of urine.

(3.) Painful or difficult micturition—and illustrate the Paper by cases observed in my own practice, and endeavour to analyze the subject to show how much of the trouble complained of is due to abnormalities in the *urine*, in the *bladder*, *urethra*, *surrounding organs*, or in the *nervous system*, for we must bear in mind that to have the act of micturition performed naturally, the urine must be normal, the bladder and its outlets in a healthy condition, and there must be a healthy tone in the nervous system. Now, like with every other abnormal condition, we ought first of all to be able to state within certain limits what the normal state is, otherwise we are unable to recognize any unnatural condition. Supposing we assume that the female bladder under ordinary circumstances is capable of holding a normal urine to the amount of six or eight fluid ounces before the physiological call comes to void it, and that this act is effected without any pain or inconvenience. You see by this we require a normal urine, a certain capacity of

* Paper read before Bath and Bristol Branch British Medical Association, March 10, 1880.

the bladder to hold the required amount, the physiological call to evacuate its contents, and the natural power of doing so. If any of these factors becomes altered, we have brought about some one or other of the various disorders of micturition which I intend to discuss in this paper.

First of all I will take Retention of Urine in the Bladder, its diagnosis, its causes, and its treatment.

As a rule the causes of retention of urine must be sought for outside the bladder and urethra, whereas the converse holds good to a great extent with regard to incontinence. First, the diagnosis. The fact of not passing water is not conclusive of retention of urine in the bladder; there may be no excretion by the kidneys, or there may be obstruction to the urine getting into the bladder. These states I shall not now discuss, but pass on to the diagnosis of retention of urine in the bladder, of course I mean retention of an amount which is not physiological. Usually it is possible, in bad cases, to make out a swelling with very regular outline reaching from the pubes to various points up to the umbilicus, dull on percussion and fluctuating on palpation, with a history of no urine passing, and of a desire to pass it. This is the general state of affairs, but each symptom may be altered and yet the bladder be abnormally full. For instance, it may be impossible to define the distended bladder, owing to the fatness of the abdominal walls, or to the presence of peritonitis, or great distension from ascites, or abdominal tumour. It may be resonant, owing to intestine being bound to it in front, or the bladder being held abnormally to the uterus from peritoneal inflammation, or there may be great distension of intestines with flatus. *Again*, urine may pass from over-distension, and yet there may be retention to a dangerous extreme. There may be no desire to pass water from the severity of illness lowering the nervous sensibility. All these points must be remembered, or mistakes will be sure to arise. If there is any doubt about there being retention of an abnormal amount of urine in the bladder, we only have to do a very simple thing, and that is to pass a catheter, taking care that the catheter is pervious, for cases have been known where the grease used to lubricate the catheter has obstructed it; this of course would lead to very erroneous impressions of the case. I have been surprised myself at the frequency with which the condition of the bladder has been overlooked, and how the very grave symptoms induced by its over-distension have been set down as due to other causes. It is

of the utmost importance that retention of urine should be recognised early and treated properly. You may let a woman go on for weeks suffering from incontinence of urine, provided it is not due to over-distension, but she cannot be allowed to go on for many hours with her bladder distended without serious mischief resulting. I have seen delirium, high temperature, sweating, and shivering, all produced within twenty-four hours, because a woman recently confined has been unable to evacuate the contents of her bladder. We are all familiar with the cystitis induced from a similar cause, spreading back through the ureters and damaging the kidneys.

I will now refer very briefly to some cases which illustrate the causation of retention of urine. One very common cause of retention is an altered relation of the bladder and urethra to the surrounding organs, and when we consider their anatomical relations to the uterus, we can realize how the various displacements of this organ can interfere with the function of the bladder.

The first case is one of retroflexion of the gravid uterus, causing retention of urine. M. A., pregnant three months, whilst lifting a basket of clothes felt pain in her abdomen, and afterwards was unable to pass any urine, except in small quantities, and with very great straining. The urine was drawn off night and morning for a month; but no attempt was made to replace the uterus, nor was she told to adopt any position which might favour the return of the displaced organ. She was admitted into the General Hospital with a large fluctuating abdominal tumour, distended bladder, &c., utterly unable to pass water. The bladder was emptied, and the gravid uterus, which was in part blocking up the hollow of the sacrum, and also in the hypogastrium, lifted up into its proper position. The catheter was used for about three days night and morning, when the power to void the urine naturally, returned, and by degrees the cystitis, which was very acute, disappeared.

CASE 2.—Similar in some respects to Case 1. Mrs. B., whom I had attended for retroflexion of the uterus, became pregnant, after wearing a pessary, which kept the uterus in good position. The pessary I must tell you was removed prior to her becoming pregnant, the uterus having by its means regained its normal position. When she was about three months pregnant (the exact time was eleven weeks, as proved by the date of confinement), she found one morning that she was unable to pass her

water, and when I saw her in the afternoon there was great distension of the bladder, and the uterus was pregnant but retroflected. I emptied her bladder, and made her lie in the position known as the genu-pectoral one, and without any manipulation the uterus regained its normal position, I have no doubt in this case that with the increased weight of the pregnant uterus retroflexion came on again, and that, when the uterus enlarged sufficiently to press on the neck of the bladder, retention from inability to empty this organ ensued. In some cases I believe it is possible that the uterus may grow in the normal direction and get hitched below the sacral promontory, and thrown back into the position we find it; but in most cases, I believe, retroflexion exists some weeks before we get the difficulty with the water, and the sudden onset is most likely due to an extra acuteness of the bend being produced from pressure downwards, or from increased weight from bulk of the uterus, causing it to fall lower into the sacral hollow. I consider always, at all events in the cases I have seen, the displaced uterus is primary, and the distended bladder secondary. In the diagnosis, a large fluctuating tumour suddenly coming on in the lower abdomen should always be regarded with suspicion. Of course it may be a hæmatocoele or an inflammatory effusion, but the catheter will at once set the matter at rest. One does hear now and then of a distended bladder being mistaken for ascites or ovarian cystic disease.

The third case was one where a woman had been suffering for some time from a fibroid uterus which had several large out-growths. She had suffered from difficulty in passing water for some time, when after straining at stool she was unable to pass any water. When I saw her, twenty-four hours afterwards, there was the usual abdominal swelling and a firm, hard mass, the fundus uteri, blocking up the pelvis, the os uteri small and firm up above the pubes. The uterus was replaced, after the bladder had been emptied, and kept in position by a Hodge; the power to urinate returned at once.

CASES 4 and 5 showed rather an unusual cause for retention, namely, ante flexion of the uterus in one case, anteversion in the other. As a rule we get difficulty, and sometimes incontinence of urine, but rarely retention with this form of displacement.

CASE 4.—The ante flexion was accompanied with a heavy subinvolted uterus, and there had been a gradually increasing

difficulty with passing water, at last culminating in complete retention, which was cured by a cradle pessary.

CASE 5.—The anteversion of the uterus was due to jumping off a high chair, the uterus being bulky from fibroids in the fundus. The os was near the promontory of the sacrum. The fundus low down in the anterior fornix of the vagina. The uterus was replaced and kept in position by a cradle pessary. The power to empty the bladder did not return for some days. There was in this case great mental disturbance owing to the suddenness of the displacement. *Apropos* of this case I might mention one where a lady who was menstruating, jumped out of bed and was unable to pass water afterwards, and upon examining her I found a bulky fundus uteri, apparently from fibroid development, very much pushed down on to the bladder. I was enabled to push it up again, but for weeks she was unable to empty her bladder, which inflamed very much; her urine, which was drawn off twice daily, being thick and highly offensive. In this case the mental condition bordered for some time on insanity. I have no doubt at all, that a sudden uterine displacement may be quite sufficient to unhinge a feeble-minded woman.

The case that I now relate is one where the retention was due to a very large hæmatocele, formed in the retro-uterine peritoneal space, and which pushed the uterus and bladder forwards up above the pubes, and entirely prevented the bladder being emptied. It also caused great interference with the rectum.

Briefly, the case was as follows:—Mrs. A., having missed one period, was seized a fortnight afterwards with great pain in the abdomen, a discharge of blood *per vaginam*, and inability to pass water. When I saw her with her medical attendant, a week after the onset of symptoms, there was a rather firm tumour reaching to the umbilicus, dull on percussion and obscurely fluctuating. *Per vaginam* the os uteri could just be reached high up above the pubes, and the whole of the pelvis was occupied by a semi-solid mass reaching low down between the rectum and vagina, almost forcing Douglas's pouch through the perineum. The pelvic mass was diagnosed to be a hæmatocele. The abdominal mass was in part the uterus, reaching from the upper part of the pubes half way up to the umbilicus, in part distended bladder, and the remainder a continuation of the hæmatocele. This woman had a very careful medical attendant, who emptied her bladder twice daily and relieved the rectum by enemas, and in six weeks

all the blood was absorbed, and the uterus dropped low in the pelvis. With the disappearance of the hæmatocele the power to empty the bladder returned.

I will now relate a case where the cause of the retention was only found out post-mortem. H. G. was sent into the General Hospital under my care because she was unable to pass her water. She had a large abdominal swelling, dull on percussion, and semi-fluctuating, reaching from the pubes nearly to the umbilicus, and occupying pretty much the position of the pregnant uterus at five months. *Per vaginam* I found the os uteri very high up close above the pubes, the length of the uterus was three inches, and its position upwards and forwards. The pelvis was occupied by a semi-solid mass occupying the whole brim and pressing down in the sacral hollow. There was no history of any abdominal tumour, and as the abdominal pain and retention came on together, and as there was a large semi-solid mass left in the pelvis and abdomen after the bladder was emptied, I diagnosed a hæmatocele as the cause of retention, and as the temperature went up and rigors ensued, I passed an aspirator needle into the swelling in Douglas's pouch, and drew off what I at the time took to be purulent fluid. It was my intention, if the symptoms were not abated by the next morning, to make a free opening into the cyst. I had aspirated and washed it out with iodine, but the woman died in the night, and the post-mortem revealed that I tapped, not a blood cyst with purulent contents, but a cystic portion of a dermoid cyst of the left ovary, which had become wedged into the pelvis, and had become inflamed, and contracted the most intimate adhesions to the surrounding organs. How the woman could have had the tumour in her abdomen without knowing it is a wonder, but it is surprising how large tumours exist without the subject of them being aware of their presence. I have no doubt in this case that it must have sunk in the pelvis and then inflamed, as these cysts are very prone to do. She died from peritonitis.

All the causes I have named hitherto have produced displacement of the neck of the bladder and urethra. I now will mention briefly a few other conditions in which the bladder maintains its normal position to the neighbouring viscera.

First of all, I will take a very common form, and that is retention after labour. There are many causes, I believe, for this. In some, I believe, it is due to loss of power from over-distension

prior to delivery ; but I think this only accounts for a few of the cases observed, at least in my practice, where I take care by freely using the catheter to prevent over-distension during labour. I have often noticed retention from inability to empty the bladder from, I believe, the unusual position which we place our patients in after labour, unusual as far as their passing water is concerned. It is a matter of common observation how often a woman who has been unable to pass water while lying on her back, has been able to do so easily on her knees and elbows. Well, then, I shall place unaccustomed position as one of the most common causes of retention after labour.

Another cause probably is the swelling of the soft parts after labour, especially about the orifice of the urethra.

Another form is induced by the woman, from dread of hurting herself ; after having passed water and suffered from smarting, owing to some vaginal laceration, she puts off the time until the bladder becomes over-distended. This variety of case is not uncommon, and accounts for the retention coming on a few days after labour. The following case illustrates my meaning as well as points a moral.

I was called by a medical friend to deliver for him a primipara, who had been in labour some hours. I did so with the forceps. She passed water naturally for the first three days, when she began to suffer from incontinence. My friend called on me to ask whether I thought there was a fistulous opening formed into the bladder. From the short time the head had been arrested, and from the care I took in the delivery, I did not think it possible, and suggested that most probably the incontinence was from over-distension, which turned out to be the case ; the patient, finding that passing water hurt her, put it off as long as she could, until she induced an over-distended condition of the bladder.

Any inflammatory condition of the peritoneum or viscera in the neighbourhood of the bladder will in certain cases produce retention.

In the stage of exhaustion of fevers, &c., one meets with retention very often. I cannot make a short Paper like this exhaustive of all the causes of retention of urine ; I only wish to bring the subject before you with reference to some of the causes which have frequently come under my own observation. I am perfectly aware that I have adduced nothing new on the subject ; but it is well that now and then we should look simple mat-

ters in the face, for in their very simplicity lies the danger of our overlooking them. What is most common for us to think about when forty-eight hours after labour we find our patient with a temperature of 102° , pulse 120, anxious face and sweating, and great abdominal pain? The nurse having told us that the water has been passed all right, we think of all the horrors of metroperitonitis, puerperal fever, &c. I have seen patients like this more than once, and have found to my intense relief that a distended bladder has been the cause of all of it, and that the dribbling of urine had been mistaken by the nurse for natural passing water, and within a very short time of emptying the bladder, all the unfavourable symptoms have disappeared.

I will now very briefly allude to some of the more common causes of incontinence of urine, which I shall define as "Want of power or inability from pain to retain a normal amount of urine in the bladder." Together with this part of the subject, I shall also make mention of some of the common causes of painful micturition, which one finds often to go with incontinence, just as difficulty in passing water often leads on to retention.

First.—Any opening into the bladder, either from accident or cancer, &c., will produce incontinence and often painful micturition. The external genitals becoming raw from the constant passing of water, produces great smarting. The constant, or almost constant, flow of urine in these cases ought to raise our suspicions, and a direct examination will clear up the case.

Secondly.—Incontinence of urine from an over-distended condition of the bladder. I have already alluded to this subject. A careful examination of the abdomen and the use of the catheter ought always to settle the diagnosis of this form of incontinence.

Thirdly.—A form of incontinence due to the bladder being unable to retain urine from paralysis of the neck, either in cases of paraplegia, or from local paralysis of the muscular bundles around the neck of the bladder due to distension and instruments used for the removal of calculi, &c., from the bladder.

In reference to this latter form, I might say that some of the cases I think might have been prevented if the plan of rapidly dilating the urethra were more constantly used instead of the slow one by tents. I have never seen incontinence for more than a few days after using Weiss's dilator, but I have known several cases of very troublesome incontinence after the slower form of dilating the urethra with sponge or tangle tents.

I will now allude to a very common cause of incontinence, where the bladder resents the presence in it of an abnormal urine, where that fluid contains pus, blood, sugar, or lithates and phosphates in excess. I am sure cases will come to the memory of all here in which pus from bladder or kidney disease has kept up incontinence of urine. I have repeatedly seen cases where the abnormal constitution of the urine has been the cause of incontinence; where, for instance, owing to kidney disease, blood and pus have entered the bladder with the urine. Often the presence of sugar in the urine, even where there is not an immoderate flow of urine, will produce incontinence. I can call to mind two cases, where two old ladies consulted me about incontinence and painful micturition. They both had sugar in the urine, and neither could retain her water for more than half an hour, although the whole quantity passed in twenty-four hours did not exceed three pints. They both suffered from a common affection in diabetes—viz., eczema of the vulva. After a time the sugar disappeared from the urine, and with it also vanished the incontinence.

A very common form of incontinence is due to the urine being loaded with lithates or phosphates. This is a common history. A lady living on all the good things of this world and taking very little exercise, suffers from constipation and incontinence of urine. Give her the old-fashioned blue pill, &c., and a few doses of alkali, you then cure her for the time. If she will alter her habits you can cure her permanently; if she will not, then sooner or later she will get a nasty, irritable bladder, and do what you will you cannot cure her.

Another cause of incontinence is due to the bladder itself being unable from disease to retain even a normal amount of a healthy urine. The diseases alluded to are chiefly the various forms of cystitis, acute and chronic. It is very difficult to say what causes the cystitis in a good many cases. I believe that abnormal urine is one cause. Another cause is owing to the bladder not being able to evacuate its contents thoroughly, and there is a residual urine left, which induces a subacute form of cystitis, and this when once brought about will cause the bladder to reject even a normal urine. I have often noticed this form of painful and frequent micturition in women suffering from prolapsus uteri, either partial or complete, and also in various other uterine displacements. Of course I hardly need say that the

presence of a calculus in the bladder would set up the same train of symptoms I have just mentioned.

Diseases of the urethra, vascular growths, and painful tumours in the neighbourhood of the urethra, will cause both painful and frequent micturition. If a woman complains of too frequent micturition, and pain accompanying the act, we should always make a direct examination, and often find some of the conditions I have named.

The various uterine displacements may all of them cause at one time or another incontinence of urine. I must now allude to a very common cause of too frequent micturition brought about from reflected irritation from, first, granular disease of the cervix uteri, secondly, from hæmorrhoids.

The following is a good example. Mrs. K. consulted me because she was unable to retain her water for more than one hour at a time, having to get out of bed at least half a dozen times each night. She was perfectly miserable and low-spirited, although surrounded with every luxury money could obtain. I found that she had suffered from leucorrhœa and excessive menstruation. An examination showed a very painful granular os and cervix uteri. The local application of nitric acid healed the cervix, and the disorder complained of entirely went away. The urine I had previously ascertained to be normal.

Another case was equally as bad from the irritation of the hæmorrhoids, after curing which the incontinence disappeared.

I have had cases like the last two forms described so often that I have come to the conclusion that reflected irritation is a very common, and yet often an easily removed cause of incontinence.

I will not detain you further on this subject, but simply remark that it requires tact and a good deal of cross-examination to elicit the exact urinary trouble that a woman may complain of. For instance, women often complain to me of a difficulty in *passing* water, whereas they really mean a difficulty in *retaining* it, a very different condition altogether.

Abstracts of Societies' Proceedings.

OBSTETRICAL SOCIETY OF LONDON.

Meeting, Wednesday, March 3, 1880.

W. S. PLAYFAIR, M.D., *President, in the Chair.*

Double Monster.

Dr. GODSON showed for Dr. Yarrow a double monster, the labour having been attended, in the first instance, by a midwife attached to the City of London Lying-in Hospital. The heads were separate; the spinal columns converged, but were distinct throughout. The sternum was single, the heart fused into one, and resembling in type the heart of fishes. The description of the dissection by Mr. Eve was appended.

The PRESIDENT remarked that an account existed of a two-headed monster which lived to the age of thirty, and was noted for its erudition. Had this specimen lived it would have had two separate intelligences.

Dr. YARROW described the mode of delivery: the first head was delivered by the forceps, and progress was then arrested. The right arm was released by the fingers, and the second head then discovered. It was extracted by the vectis, used as a lever, aided by considerable pulling.

Mr. EVE said that he thought the arrest of development of the right heart was due entirely to mechanical causes, viz., to tension. The fused hearts occupied a position considerably to the left of the mesial line, so that the right heart was much further removed than usual from the right head. The distance therefore which the right heart would have to traverse from the point immediately beneath the head fold (where its rudiment first appears) to its present position, would be much greater on the right than on the left side. In the descent of the heart and the growth forwards of the head of the embryo, an abnormal amount of tension on the primitive heart tube was probably produced, which would be likely to interfere with the normal folding of the tube upon itself, and thus prevent its development beyond the simple condition found. The venous end of the tube remained fused with the other heart, forming a common auricular cavity; the middle portion formed the single small ventricle, whilst the upper end, which should have

been brought down, remained as a muscular tube resembling the bulbus aortæ of fishes. The extreme length of the ductus arteriosus on the right side added strong evidence to this theory.

Pelvic Viscera showing Congenital Communication between the Rectum and the Genito-Urinary Tract.

Two specimens of this condition were shown by Mr. ALBAN DORAN. The first was from a male infant, who died at the age of six months, and had passed meconium by the urethra, the anus being absent. The channel entered the urethra just below the sinus pocularis, and admitted a No. 4 bougie. The second case was that of a girl fourteen years old. She was admitted into the Samaritan Hospital under Dr. Wynn Williams, for obstruction of a common cloaca by a mass of fæces, and was relieved for a time. She died from cellulitis, with pyæmic deposit in the lung, which came on with sudden pain during the administration of an injection by a nurse. The vagina and rectum both opened into the vulva, the orifice of the rectum being half an inch in diameter. The cavity of the cloaca almost filled the pelvis, and the vulva extended back to the coccyx. He remarked that these cases could not be regarded (as an evolutionist might possibly suggest) as reversions to an earlier type; for in all those species in which the bowel and genital orifice opened into a common cloaca there also existed other peculiarities, none of which were present in these cases.

Dr. AVELING thought that some relief might have been obtained by operation in the latter case. He suggested that by removing a portion of the coccyx possibly a successful operation might have been done.

Dr. ROGERS said it was impossible for any one who had not examined the patient to judge correctly how impossible it was to form anything like a distinct rectum. From the manner and length of time the vagina had been distended by fæces it had become a cloaca filling the pelvis. The entrance from the rectum into it was high up, and it was thought impossible by all who carefully examined the parts during the patient's life to obtain tissue to form a rectum.

Anteflexed Uterus.

Dr. HAYES showed a specimen of anteflexed uterus. It had been found at the post mortem, and he could furnish no uterine clinical history, except that the woman, aged fifty-seven, had

never been pregnant. She died from renal disease. The body of the uterus was arched downwards and forwards, almost touching the bladder. Two or more narrow loose adhesive bands extended from the bladder to each anterior border of the uterus, above the internal os. The infra-vaginal portion of the cervix had almost disappeared; the external os was small and circular (pinhole). On making a longitudinal section there was seen in the posterior wall, just above the internal os, a fibroid tumour, the size of a hazel-nut, which closely approached the uterine cavity. On the anterior wall of the cervix there was a sessile mucous polypus, the size of a small raisin, and above this a Nabothian ovule. The length of the uterine cavity was $2\frac{1}{2}$ inches, and the breadth at the fundus $1\frac{3}{4}$ inches. The cervical cavity was dilated and spindle-shaped. The flexion, which, properly speaking, was more of an arching than a flexion, existed just above the internal os, below the site of the fibroid tumour.

Report on Specimen of Ruptured Fallopian Tube.

The report, by Dr. J. Williams, Dr. Godson, and Dr. Galabin, on the specimen of ruptured Fallopian tube, shown at the January meeting by Dr. Godson for Mr. Barton, was then read. Embryonic cells in the wall of the Fallopian tube, also villi, and part of the chorion, were discovered. It was considered that the embryo could not have reached more than one month's development, and that the corpus luteum in the opposite ovary was as much as two or three weeks old. The uterine decidua was almost entirely absent.

Dr. GALABIN showed microscopical sections, including the chorion and villi, and also the giant embryonic cells growing from the tube-wall.

Cast of Fœtal Head.

Dr. ROPER exhibited the cast of a fœtal head showing the furrowing in the left temporal region caused by pressure against the promontory of the sacrum in delivery through a narrow conjugate. He said this was the mother's third child. In her first labour she had been delivered with much difficulty by forceps of a still-born child, the hand having come down beside the head. In her second labour with head presentation I tried to deliver with forceps, but failed. I afterwards effected podalic version but could not extract the head, and was obliged to have recourse to cephalotripsy. In her third labour the funis and hand prolapsed

by the side of the head. I tried to deliver by podalic version, but the amount of traction that I could fairly use did not succeed in getting the head through the narrow conjugate. I waited the arrival of Dr. Herman to assist me and give chloroform preparatory to performing cephalotripsy; but before his arrival she had six or eight severe pains, and the head was expelled naturally. Attention has been called to these furrows (and at times actual fractures of the cranium) by Dr. Goodell in an interesting and excellent Paper "On the Mechanism of Natural and Artificial Labour in Narrow Pelves," published in the "Transactions" of the International Medical Congress, September, 1876. The bi-temporal measurement of this head through the point of depression is $3\frac{1}{8}$ inches. After delivery, measurement of the pelvic conjugate by means of the open hand passed up through the brim was ascertained to be just about three inches.

Dr. ROPER also exhibited a specimen of malignant disease of the cervix uteri. The patient, aged thirty, had borne one child, eight years ago, and during the last six months had had almost continuous hæmorrhage. Her health was much impaired and she was much wasted. On examination, *per vaginam*, there was a large bulbous excrescence of disease at the point of the cervix, and above there seemed at first to be a healthy state of its structure; but on passing the finger into the posterior vaginal pouch a streak of indurated tissue could be traced up to the body of the uterus; but for this it looked like a case suitable for surgical removal. After having been in the Royal Infirmary for Women and Children four or five days she was seized suddenly with intense abdominal pain which threw her into a state of collapse; but she lived on four or five days. After death there was evidence of severe and universal recent peritonitis. The left ovary is seen to be bound to the posterior surface of the uterus by old adhesions. Both ovaries contain recent blood clots. The entire length of the cervical canal is in a state of malignant ulceration.

On Axial Rotation of Ovarian Tumours, leading to their Strangulation and Gangrene. Three Cases successfully treated by Immediate Ovariectomy.

By Mr. LAWSON TAIT.

The first case of the kind which the author had met with was that of a woman aged forty-eight, on whom he had operated for a femoral hernia, supposed to have been strangulated for two days.

The patient died in five days. The autopsy revealed a small ovarian tumour not recognised during life. It was black and gangrenous from twisting of the pedicle. Of the three cases now recorded the first was that of a woman forty-six years old. In March last the author diagnosed a small monocystic tumour, probably parovarian. On June 9th she returned with the tumour much enlarged, and suffering from intense abdominal pain. Immediate ovariectomy being performed, the author found the cyst of a black pearly colour, universally adherent by recent lymph. The pedicle was twisted three or four times. The patient made an uninterrupted recovery, though no Listerian precautions were used. The second case was that of a woman, aged thirty, who had noticed gradual increase of size for nine months. Sudden and violent pain in the abdomen occurred on November 4th, followed by incessant sickness. Ovariectomy was performed on November 12th with Listerian precautions. The tumour was dark purple, friable, and universally adherent by recent adhesions. Bleeding was controlled by the application of solid perchloride of iron. The pedicle was twisted twice. The patient survived, but made anything but an antiseptic recovery. The third case was that of a woman, aged thirty-six, who had not menstruated for seventeen weeks, but had noticed an increase in size too rapid for ordinary pregnancy. Intense abdominal pain, followed by sickness, came on on November 21st. Immediate ovariectomy was performed. The uterus was found occupied by a pregnancy of about the fourth month. The tumour was a parovarian cyst of the right side, and was of a pearly black lustre, and the pedicle was twisted three times. Listerian precautions were used, and the patient made a better recovery than the second case, but not so good a one as the first. No symptoms of miscarriage appeared. In all these three cases the tumour was one of the right side, and the pedicle was twisted from within outwards and to the right side. From this circumstance the author deduced a theory as to the causation of the rotation, viz., that it is due to the alternate filling and emptying of the rectum. The fæces descending, the rectum would act as a wedge, and the point of application of the force would be the most favourable possible in the case of a right-side tumour.

Mr. KNOWSLEY THORNTON had met with, in his practice, six other cases of the condition in question, besides the one he had already put on record. In one of them both ovaries were cystic,

and both pedicles were twisted. In another, although the tumour was sodden, containing black tarry blood, and was therefore evidently dead, yet the patient's health was not seriously impaired at the time of the operation, and she did well. He agreed with the author that immediate ovariectomy should be performed when symptoms arose leading to a suspicion of such a condition. Cases such as the one he had mentioned showed well the power of Nature, when septic influences were not admitted, in rendering dead parts innocuous. He thought the explanation given by the author of the origin of the twisting was untenable; if it were correct, twisting of the pedicle ought to be much commoner than it is. Out of 165 cases of ovariectomy he had only met with it seven times. He had noticed in such cases the tumours get smaller and more solid; this, he thought, was important in diagnosis.

Mr. SPENCER WELLS did not think it difficult to understand how an ovarian tumour of moderate size could rotate and twist a pedicle of some length. The mere alteration from the erect to the recumbent position of the patient was enough to account for a half turn. If the twist were not enough to compress blood-vessels, little effect might be produced; and it was very common in ovariectomy to notice that a pedicle had been twisted without any apparent consequence. When the veins of the pedicle are closed by the twist, severe pain and bleeding into the cyst, or rupture of the cyst, after inflammatory changes, might follow. He had seen two patients who died suddenly from very large bleeding within the cyst, without its rupture. Until the cysts were opened the cause of the sudden death was not ascertained. Last year he had operated upon a Russian lady who was supposed to be dying of a malignant tumour because she was so extremely pallid—quite marble white—and had a very hard abdominal and pelvic tumour. He removed both ovaries, and found that the larger tumour on one side was dermoid, quite black and rotten, though not putrid, infiltrated with blood, and the pedicle so twisted as to be almost divided. This lady had completely recovered, and had now a brilliantly florid complexion.

Dr. BANTOCK said he was just then unable to recall the exact number of cases of twisted pedicle which had occurred in his practice. He would only refer to the last two, of which one occurred in December last, and the other on Wednesday last. The former was a right-side tumour with a long pedicle, and the

latter a left-side one, with a short pedicle. Both were very small, under two pounds, almost universally adherent, and contained coffee ground-looking contents. Both patients had had symptoms of peritonitis, which had been preceded by a sudden attack of pain. He believed that the twisting produced no symptoms whatever, being a gradual process; but rupture of a blood-vessel into the cyst was indicated by an attack of pain, sudden and severe in proportion to the amount and rapidity of effusion, as in the cases of which Mr. Wells had spoken. This condition was sooner or later followed by a subacute form of inflammatory action. Hence the adhesions which were so frequently found in these cases. He thought the treatment proposed would meet with approval, provided circumstances were favourable to the performance of the operation; but he feared it would most frequently happen that when the condition was recognised the patient would either be moribund or already recovering, in either of which cases interference would probably be negatived.

Dr. HEYWOOD SMITH said that Mr. Lawson Tait, in his valuable Paper, and Mr. Spencer Wells in his observations, had come to the conclusion that where a condition of strangulated ovarian tumour was diagnosed, on the advent of pain, ovariectomy should be performed; but it seemed to him that given an ovarian tumour, should pain suddenly supervene at all, ovariectomy should be performed at once, for it appeared that the pain is an indication of mischief arising which might seriously complicate the case if there were delay; and in these cases a factor was always present which did away with any doubt about operating—viz., that there were no adhesions. With all deference as to what Mr. Spencer Wells said as to the wonder being that more ovarian tumours were not strangulated, he ventured to remark that with small tumours the pedicle was more often short, and so offered a resistance to twisting, and in large tumours their very size prevented, as a rule, such a contingency. With regard to Mr. Tait's theory of the rotation, if concurrent thought was of any value, he would say that the same explanation had occurred to him while the Paper was being read.

Mr. ALBAN DORAN remarked that Mr. Tait's theories with regard to the causes of torsion accorded with some of his own convictions grounded on experiments he had made in the post-mortem room of the Samaritan Hospital when examining cases of ovarian disease that had proved fatal before any operation could

be performed. Supposing that a large tumour with an irregular surface lay to the right of the rectum, an accumulation of fæces might press upon the pelvic portion of the growth in such a manner as to push the whole tumour about a quarter of a turn round its vertical axis. Should the pedicle be very long, or short, yet inelastic, it would remain twisted after this pressure was removed, and might become still more twisted after it was reapplied. Should the pedicle be short and elastic, the tumour would slip back to its normal position every time that the pressure was removed; only this pressure might be applied so long that the temporary torsion might involve damage to the vessels of the pedicle, producing all the bad effects of permanent and complete torsion after the pedicle has become untwisted. In examining the body of a patient who died in Mr. Knowsley Thornton's ward last December he found a large ovarian tumour pressed upon to the left side, inferiorly, by the rectum, which was slightly distended owing to a cancerous stricture. A little artificial distension of the intestine caused it to press against the tumour so as to push its left side backwards, stretching and twisting the pedicle. In examining this pedicle he found that it was not twisted, but that its veins were partially plugged, in all probability from the effects of intermittent pressure through frequent extreme distension of the obstructed rectum.

Mr. LAWSON TAIT replied that he was greatly obliged for the kind reception of his Paper by the Society. He hoped that Mr. Thornton and Mr. Wells would publish their cases with specific details, as it was only in this way that correct conclusions could be arrived at concerning the mechanism of the twist. He was not affected by Mr. Wells's suggestion that it was probably an accidental occurrence, for if it were true generally, as it certainly was in Rokitsansky's observations and in his own, that the great majority of the tumours twisted were right-sided tumours, and that they were twisted in one specific direction, it was clear that some special mechanism must be concerned in the process of rotation. The facts given by Mr. Alban Doran were emphatically in favour of the theory he had advanced, and, doubtless, if Mr. Doran continued his observations, some valuable results would be arrived at. If a left-sided tumour could be found rotated from within outwards and over to the left, in a case where the rectum was on the right side, Mr. Tait would regard his hypothesis as proved.

A Complete and Authoritative Refutation of the Marvellous Account given by Prof. Claude and M. Gardien, of Paris, in 1816, to the effect that the Princess Pauline de Schwartzenberg was delivered of a living fœtus some hours after she was burned to death.

By DR. ROBERT P. HARRIS, Philadelphia.

The author said that the story told by Prof. Gardien was that the princess perished from the effects of burns received at a *fête* given in the house of the Austrian ambassador, her brother-in-law, on July 1st, 1810, that she was pregnant, and the infant was found alive, although she was not opened until the day after the accident. From research among contemporary authorities the author found that the ball was given in a large temporary wooden building, and the fire broke out soon after dancing commenced. The princess escaped with others, but rushed back to seek for her daughter, and so perished. In the morning the disfigured remains were recognised as hers by a piece of gold jewellery. Madame Junot writes that "her body, with the exception of her bosom and a part of one arm, was burnt to a cinder." The *Court Journal* of July 3rd, 1810, states that the princess was *four months* pregnant. No mention is made of the case in the medical journals of the time. This story, therefore, which was repeated by Gardien in his third edition, quoted by Velpeau, and has attained general notoriety, is absolutely without foundation.

OBSTETRICAL SOCIETY OF EDINBURGH.

Meeting, Wednesday, November 26, 1879.

Dr. ANGUS MACDONALD, *President, in the Chair.*

Professor SIMPSON read Note on Method of Case-taking in Gynæcology.

Several years ago Professor Grainger Stewart prepared a printed scheme for the guidance of his clinical clerks in "taking" their cases, and his example has been generally followed among the physicians and surgeons in the Royal Infirmary of Edinburgh.

Dr. Emmet, of New York, has given in his recent work* an

* "Principles and Practice of Gynæcology," p. 58. London. 1879.

interesting form for recording cases of disease in the pelvic organs of the female ; and I have met with other schedules for guiding the record of such cases. Not being satisfied, however, with any of them, I have lately drawn up a method of case-taking for the immediate purpose of guiding the clinical clerks in keeping records of gynæcological cases in the Buchanan Ward. It occurred to me that it might interest the Fellows of this Society to have the opportunity of discussing it ; and in submitting it now to their notice, I shall be glad of any suggestions for its improvement.

It is printed in the form of a double card with two columns.

DISEASE.

ANAMNESIS.

1. NAME ; AGE ; OCCUPATION ; RESIDENCE ; MARRIED, SINGLE, OR WIDOW ; DATE OF ADMISSION.
2. COMPLAINT AND DURATION OF ILLNESS.
3. GENERAL HISTORY OF—(a) Present Attack ; (b) Previous Health ; (c) Diathesis ; (d) Social Condition and Habits ; (e) Family Health.
4. SEXUAL HISTORY.
 - (1) *Menstruation*—
 - A. Normal—(a) Date of Commencement ; (b) Type ; (c) Duration ; (d) Quantity ; (e) Date of Disappearance.
 - B. Morbid—(a) Amenorrhœa ; (b) Menorrhagia ; (c) Dysmenorrhœa.
 - (2) *Intermenstrual Discharge*—(a) Character ; (b) Quantity.
 - (3) *Parexunia*.
 - (4) *Pregnancies*—(a) Number ; (b) Dates of First and Last ; (c) Abortions ; (d) Character of Labours ; (e) Puerperia ; (f) Lactations.
5. LOCAL FUNCTIONAL DISTURBANCES OF—(a) Bladder ; (b) Rectum ; (c) Pelvic Nerves and Muscles.
6. GENERAL FUNCTIONAL DERANGEMENTS OF—(a) Nervous System ; (b) Respiratory System ; (c) Circulatory System ; (d) Digestive System ; (e) Emunctories.

PHYSICAL EXAMINATION.

1. GENERAL APPEARANCE AND CONFIGURATION.
2. MAMMÆ.
3. ABDOMEN—(a) Inspection ; (b) Palpation ; (c) Percussion ; (d) Auscultation ; (e) Mensuration.
4. EXTERNAL PUDENDA.
5. PER VAGINAM—(a) Orifice ; (b) Walls and Cavity ; (c) Roof ; (d) Os and Cervix Uteri.
6. COMBINED EXAMINATION — (Abdomino-Vaginal, Recto-Vaginal, Abdomino-Rectal, Abdomino-Vesico-Vaginal, Abdomino-Vesico-Vaginal)—
 - (1) *Uterus*—(a) Size ; (b) Shape ; (c) Consistence ; (d) Sensitiveness ; (e) Position ; (f) Mobility ; (g) Relations.
 - (2) *Fallopian Tubes*.
 - (3) *Ovaries*—(a) Size ; (b) Situation ; (c) Sensitiveness.
 - (4) *Peritoneum and Cellular Tissue*.
 - (5) *Bladder*. (6) *Rectum*. (7) *Pelvic Bones*.
7. USE OF—(a) Speculum ; (b) Volsella ; (c) Sound ; (d) Curette ; (e) Aspiratory Needle ; (f) Tent or Dilator.
8. PHYSICAL CHANGES IN—(a) Nervous ; (b) Respiratory ; (c) Circulatory ; (d) Digestive ; (e) Emunctory Organs.

DIAGNOSIS.

PROGNOSIS.

TREATMENT.

PROGRESS AND TERMINATION.

On the left-hand page or column are noted the points regarding which information is to be gained from the anamnesis or recollection.

tion of the patient. An experienced practitioner in this, as in other departments of medicine, has learned how to draw from the patient a few facts of her history that guide him to the seat of mischief, and may even give him a fair impression as to its probable nature ; but the student who is learning to investigate requires to have some such chart as this to guide him in his inquiries ; and it may even prove helpful sometimes to the skilled practitioner who wishes fully to investigate and keep a record of his cases.

Every case will not, of course, demand inquiry regarding every point registered in the several paragraphs. But, on the other hand, any case that comes before us may demand inquiry as to any of these points. And it is well in the history of each case to get information as to some of the sections of Sexual History in paragraph 4. It is important, for example, to get all the information possible concerning menstruation. It is only by getting the reliable history of the date of its commencement in a large series of cases that we arrive at a determination as to the normal date of puberty. Hence, under the heading of Normal Menstruation, suggestions are made for inquiry into this and the other important characters of the natural function. Under the heading of Morbid Menstruation attention is turned to the three directions in which it is liable to be modified : amenorrhœa suggesting all the varieties of diminution up to complete absence of the flow ; menorrhagia, the varieties of increased discharge ; and dysmenorrhœa, the cases where the period is attended with pain before, during, or after the flow.

The second section of the Sexual History has regard to the discharges of various kinds that may occur during the intermenstrual periods. These have sometimes been ranged under the general category of leucorrhœa, but they vary from the clear albuminous discharge of a uterine catarrh, through the mucous, purulent, creamy, and flocculent discharges of chronic vaginal and cervical inflammations, to the watery, sanious, foetid, fæcal, and urinary discharges attendant on more grave disorders. These are such frequent accompaniments of uterine disease that inquiry as to their character and quantity in most cases becomes imperative.

The third paragraph, on the other hand, will more rarely require to be referred to. It is only in some cases of disease among married women that we meet with "the condition of difficult or painful performance of the sexual function," for which Barnes has

supplied us with the very convenient designation Dyspareunia. I have given a place to inquiry regarding Pareunia, because, though the range of cases to which it applies is limited, I agree with the opinion of Dr. Barnes,* that "dyspareunia in the female is perhaps the most absolute of all the indications of local malformation or disease. It calls the most imperatively for local examination as to its cause. In its milder forms it may make the sufferer's life a course of physical and mental wretchedness; in its severe forms it virtually unsexes her; and in any form it may lead to the most disastrous social calamities." Kehler, in his recent very interesting contribution *zur Sterilitätslehre*,† gives a proportion of 4·1 per cent. of cases of sterility in the female due to vaginismus, which, as he points out, is but one of the forms of dyspareunia.

The necessity for inquiry into the history of the patient's pregnancies impresses us when we consider how frequently the results of them, whether terminated prematurely or at the full time, give the first impulse to both acute and chronic maladies. And the investigation can never be complete without inquiry into the functional disturbances of the other pelvic organs, and usually into the more general derangements of distant organs and systems of the body.

The right-hand page or column gives suggestions for conducting the physical examination of the patient. It indicates both the subjects that chiefly require investigation, and the means to be employed in bringing the senses of sight, hearing, and, above all, touch, to bear upon the organs to be explored. Here, also, there may seem to be some points suggested for examination that are of minor importance, and methods of exploration indicated that it will rarely be necessary to have recourse to. Still every experienced gynæcologist will recognise that points which in general are of trivial import, may in certain cases demand very special attention; and even the methods of exploration which are rarely had recourse to, must be registered to remind us of their importance in certain morbid conditions of the pelvic organs.

It may be necessary to note the general appearance and configuration of the patient, the condition of the mammæ, and changes

* "Clinical History of the Medical and Surgical Diseases of Women," p. 65. London. 1878.

† "Beiträge zur Klinischen und experimentellen Geburtskunde und Gynækologie," ii. 127. Giessen. 1879.

in the external pudenda. More important in general is the investigation of the abdomen and the vagina; and the modes of their examination, or the points about them requiring attention, are more fully indicated. The largest space, however, is devoted to the combined examinations by palpation through the abdominal walls, and exploration through the pelvic outlets. This combined examination, especially the abdomino-vaginal, gives by far the most complete and satisfactory results of all the methods of exploring the conditions of the pelvic organs; and after one has acquired experience in the employment of it, he begins to feel that he can often dispense with all others. To educate himself, however, every practitioner must learn the use of the various aids to sight and touch which are indicated in the seventh paragraph; and to the last the wise practitioner will often do well to correct or confirm the impression he has gained from the combined examination by making use of one or other of the instruments which are so helpful in gynaecological investigations, and the introduction and improvement of which have constituted the most important advances in this department of medicine.

An eighth paragraph reminds us that we must not as specialists limit our view to the condition of the sexual apparatus, but be prepared to recognise and record physical changes in other systems and organs of the body.

Schultze, Spencer Wells, Beigel, and others, have given outline sketches of the abdomen and pelvic cavity and organs, with the purpose of presenting more graphically any changes that occur in the relations of these organs to each other, or to tumours or effusions that may be found among them. The progressive growth of tumours, or the progressive diminution of effusions, or changes in position of the pelvic viscera, can thus be more distinctly registered.

The PRESIDENT had been exceedingly interested in the Paper, and would be glad to hear any observations or suggestions, as Dr. Simpson had requested. He felt that the Society was deeply indebted to Dr. Simpson for the care he had evidently taken in drawing out the card. Making up such a card was like drawing deductions from statistics—the labour, time, and thought could not fairly be estimated by the mere bulk of the work exhibited. The method described was an exceedingly good one to direct the student in his inquiries. He did not see his way to making on the spur of the moment any additions to this form, which undoubtedly sup-

plied a felt want in the gynæcological teaching of this school. Some of the methods of examination mentioned were, he thought, however, hardly suitable to be recommended as matters of course to the student. Thus, he thought the "abdomino-vesical" method was too prominently put, seeing it was classed with the ordinary "abdomino-vaginal" one as if it were equally safe and necessary to a complete examination. It was a dangerous proceeding, as it might leave the patient in trouble from incontinence of urine, and it would therefore have been better had it been placed in a more subordinate position. He felt highly indebted to Dr. Simpson for his present Paper.

Professor SIMPSON thanked the Society for their reception of his Paper. In reference to what Dr. Macdonald had stated, he wished to remark that, just as when speaking of anamnesis he had said that all the points might not require investigation in every case, so under physical examination he had stated that the same held good. He was glad that the card met with the approbation of the Fellows. He did not present it as perfection or finality, but to get criticisms and additions for a future issue.

Case of Diphtheria Complicating Pregnancy.

By Dr. CHARLES E. UNDERHILL.

Dr. UNDERHILL then read his Case of Diphtheria Complicating Pregnancy.

The following case occurred in the practice of Dr. Matthews Duncan ; but as I had an opportunity of watching it a great deal, and as it presents some points of interest, I have thought it worth while to read it to the Society :—

Mrs. T., aged 27, was in the ninth month of her third pregnancy, and up to that time had enjoyed good health. On 7th March, 1876, she felt her throat a little sore, but was well enough to go out to dinner. On the following day I saw her for the first time. The tonsils were swollen, and there were some small, shreddy, whitish patches upon them. I did not then anticipate diphtheria, and cauterised lightly both tonsils.

9th.—The patches were thicker, more coherent, and of greater extent ; there was also an ugly-looking prolongation of one of the patches down the pharynx. The uvula was somewhat swollen, and presented a small yellow patch at its extremity. A gargle of chlorine water was ordered, together with large doses of iron and

chlorate of potash. The general health and strength had, up to this time, been but little affected. The morning pulse and temperature were normal.

10th.—The uvula was now covered with thick, tough membrane, the tonsils were more swollen, and the deposit on the tonsils and palate was spreading. The voice began to be slightly husky.

11th.—The voice was worse. Much pain was complained of, particularly on swallowing. The patient had had a sleepless night. The throat was at this time very characteristic; the thick, yellow, leathery patches surrounded by the reddened margin of swollen tissue, the foul-smelling breath, and the increasing depression, gave cause for much anxiety.

12th.—Last evening and this morning the voice was somewhat better, the other symptoms remaining unaltered. The voice became worse again, and, indeed, was quite lost in the evening.

13th.—The patches are extending and the voice reduced to a whisper, but the breathing remains little affected.

14th.—The voice was now hoarse and whispering, and during the day the breathing began to be somewhat laboured and noisy, but not to such an extent as to give rise to serious distress. There was, so far, no duskiess of face or impairment of mental energy. She remained throughout calm and courageous, taking a good deal of nourishment and wine.

At 11 A.M. she was seen by Dr. Grainger Stewart in consultation, and a spray of Condry was ordered in addition to the remedies previously used. During the day her condition changed rapidly for the worse.

At 11 P.M. I went to stay in the house during the night, she was so ill; the voice quite gone, the breathing hoarse and laboured, and the general condition very unfavourable. Towards morning the lips and nails began to assume a bluish appearance, and the head, which had been previously quite clear, became affected, drowsiness and stupidity becoming increasingly manifest. At 7 A.M. I sent for Dr. Duncan and Dr. Watson, the latter of whom performed tracheotomy.

15th, 7.30 A.M.—The patient was seated on a chair opposite the light, and behaved most admirably during the operation. There was a good deal of bleeding from the deeply congested vessels of the neck, but neither this nor the free opening in the trachea produced much effect upon the duskiess of the face and

neck, or gave any marked relief to the dyspnœa. Finding this to be the case, Dr. Watson passed his forefinger down the trachea, and succeeded in hooking up a large piece of false membrane. This was a remarkably fine and complete cast of the trachea, bronchi, and smaller bronchial tubes, extending to tubes of the third or fourth magnitude. It had the appearance of a mass of membrane as large as the index finger, dividing into two smaller parts, one of which was considerably narrower than the other, these, again, branching into smaller divisions. It was pulled up into the wound with the finger, and then removed by forceps. Had it not been for the removal of this cast, I do not think the patient would have survived more than one or two hours. As it was, the breathing was much relieved by the operation, and though in a very feeble and exhausted state for about two hours, she afterwards rallied considerably and regained her usual calm cheerfulness.

Up to this time the fact of the patient's pregnancy had not in any way altered the general features of the case. It was agreed that I should remain in the house, and, in the event of her dying undelivered, should make an effort to save the child by immediate Cæsarean section. This painful duty was rendered unnecessary by the further progress of the case.

While the operation was being performed she had felt the first slight labour pains, and about 10.30 A.M. she let me know that labour was coming on. The uterus could be felt contracting regularly, though the pains appeared to cause no suffering. At 11.30 A.M. the membranes were filling the vagina, with the os fully dilated. I ruptured the membranes, and the head, in the first vertex position, followed very quickly. There was very little blood lost; the uterus contracted firmly, and the patient seemed much relieved by the labour. She breathed more easily, took more milk and beef-tea, and was very decidedly better. The child was living and healthy, though small. Her pulse at the time was 140, the respirations 27 per minute all day. Her urine had been examined several times, and was always found free from albumen. During the day she had expectorated through the tube a large quantity of shreds of membrane, having a dendriform appearance when floated on water, and evidently coming from, and being casts of, the more minute bronchial tubes.

10 P.M.—Pulse 140, temperature 103°, respirations 27. When Dr. Duncan saw her in the evening she was better, quite sprightly

and cheerful. The uterus was very firmly contracted. The blueness had disappeared entirely from her nails, and to a great extent from the lips and face. She sat up quite bright in bed, but slept directly she lay down again. A catheter was passed, but little or no urine was found in the bladder, though none had been made since the delivery.

16th.—She passed a restless night, and vomited a little in the early morning. She remained, however, cheerful and not materially weaker until about 8.30 A.M., when she began to fail, and rapidly passed into a state of collapse, dying quietly an hour later.

Remarks.—Considered simply as a case of diphtheria, this case calls for few remarks. The disease ran its ordinary course. The symptoms at first were slight, and the appearance of the throat when first seen was not at all characteristic. There was no exact record kept of the pulse and temperature, but until the end was approaching they were not high. The larynx became affected, as shown by the alteration in the voice, on the third day of the disease; but it was not until four days later that the respiration became markedly impaired, which rendered it probable that the dyspnœa was due more to the gradual narrowing of the whole bronchial tract than to occlusion of the larynx alone. This was shown to be the case at the operation, when the mere opening of the windpipe was followed by little if any improvement; and it was not until the large cast was removed, and a quantity of smaller dendriform masses of false membrane were got rid of, that any relief was obtained. This rendered the prognosis after the operation quite hopeless, though the amount of temporary improvement was astonishing. The end came, as it so often does in diphtheria, very suddenly. The absence of albumen, on the several occasions on which we examined the urine, was unusual, for though not at all a constant phenomenon in diphtheria, it is usually found at some period of the case. After delivery the urine was suppressed, none being passed or secreted for the first twelve hours, and I have no record of any being passed in the ten remaining hours of life.

Of the treatment adopted little need be said. The cauterization on the first day was a mistake due to imperfect diagnosis. Subsequently, the free administration of iron and hydrochloric acid and stimulants, with the frequent local application of a strong chlorine solution, were the remedies most relied on.

As regards the complication with pregnancy, I do not remember having read any precisely similar case.

The first thing that strikes one is the little tendency to miscarriage which was manifested. There was no indication whatever of approaching labour until the time of the operation, when the patient began to feel slight pains. In another severe case of diphtheria in a pregnant woman which I saw lately with Dr. W. A. Finlay, the patient, who was at about the sixth month, recovered and went on to the full time.

I think we may therefore conclude, so far as the evidence of only two cases is of value, that diphtheria *in itself* is not one of those febrile diseases which have a distinct tendency to produce abortion in pregnant women. Such a tendency, we know, exists in a very high degree in cholera, and to a lesser extent in typhoid fever.

It appears probable that the miscarriage was directly due to the highly carbonized state of the blood which was present at the time of the operation, assisted, possibly, by the shock of the operation itself.* Carbonic acid poisoning is well known to be very generally attended by miscarriage when it happens in a pregnant woman; and we may therefore, perhaps, expect that when laryngeal diphtheria has advanced so far as to thoroughly surcharge the blood with carbonic acid, this fact may be sufficient to induce the premature expulsion of the ovum. This view is further supported by the parallel case of pregnancy, complicated by severe heart disease. Such patients frequently miscarry, after the supervention of secondary pulmonary œdema or other lung affection interfering with the proper aeration of the blood, and the fœtus is not unfrequently born alive. I feel quite certain, however, that but for the operation Mrs. T. would have died undelivered.†

It has been shown by Kaminsky that in fevers miscarriage is frequently due to the death of the fœtus, caused by the high temperature. A continued temperature of 104° almost always proves

* In 1870 I saw a case which illustrates the amount of injury which a pregnant woman will bear without miscarrying. The woman, a multipara, within a fortnight of the end of her pregnancy, fell into a vat of boiling beer, and was very seriously scalded as high up as the umbilicus, the only part below this point on which any skin was left being the feet and legs up to the knees, which were protected by thick woollen stockings. She went on to her full time, and was delivered of a living child, but sank from exhaustion a few days after her confinement. There was great difficulty in getting her delivered, owing to the swelling of the vulva and the pain produced by separating the thighs.

† See Macdonald, "The Bearings of Chronic Disease of the Heart upon Pregnancy, Parturition, and Childbed." London: Churchill. 1878.

fatal to the foetus. In our case, as far as I can recollect, 103° was the highest point reached, and the child was born alive. The miscarriage was clearly not due to the extent of fever. It is generally stated that in labour occurring during the progress of a fever there is a great tendency to severe hæmorrhage. Not only had Mrs. T. no hæmorrhage, but the uterus contracted at once very firmly, and remained in a state of very rigid contraction.

The labour was attended with very little suffering, and the patient, who was quite conscious and even cheerful, watched the process with interest. She was a woman of high courage and fortitude, and bore the tracheotomy without a groan; but it is probable that at that time her sensibilities were much blunted by the extent to which her blood was charged with carbonic acid. This condition had to a great extent passed off before delivery.

Decided improvement in her general condition naturally followed the labour. The lungs had more room to expand and the heart to act, and the breathing in consequence was much relieved.

There was no evidence that the disease had affected the organs of generation. A case is related by Trousseau where, after a difficult forceps delivery, diphtheritic patches were first observed about the vagina and vulva, and only after several days made their appearance in the throat, and then proved rapidly fatal. In that case the infant also succumbed to the disease.

The sequel was a sad one. The child, though feeble, did well for the first three days on the bottle. At this time the monthly nurse was taken ill with a severe attack of diphtheritic bronchitis, and her friends insisted on removing her to Glasgow, where she ultimately died of the disease. After this the child began to pine, refused the bottle and the breast of the wet-nurse, and died, at the end of a week, of inanition. It presented no symptom of being injured by the diphtheritic poison.

Professor SIMPSON felt that the Society was under obligation to Dr. Underhill for his record of such a rare and interesting case. The result of a post-mortem examination would have increased its value, but they all knew that these were almost inadmissible in private practice. Happily diphtheria was not so common that they should meet with it in pregnancy, and therefore every case should be recorded. Dr. Underhill believed it was not a complication apt to be associated with premature expulsion of the foetus, but yet out of his two cases one aborted. He did not think Dr.

Underhill had fully estimated the cause of the onset of labour in his case. It was questionable whether it was due to an accumulation of carbonic acid in the blood, or to a morbid state of the blood in addition. Many obstetricians were disposed to consider uterine action as excited by the presence of carbonic acid in the blood. Most practitioners must have noticed that in lung diseases, such as pneumonia, they had a tendency to premature labour. They further knew that carbonic acid stimulated unstriated muscle ; and all were aware of Brown-Séguard's theory as to the accumulation of carbonic acid setting up uterine action. But in some febrile conditions of typhus, &c., we get uterine action before the fœtus dies. Here the blood is morbid, and there may be no extra amount of carbonic acid present. As regards the diseases bringing on abortion, cholera was said to be more favourable if abortion occurred. The real interpretation of this was, however, that in the cases where there was no abortion the disease was intense, and killed the mother soon. Then, again, in typhoid fever, where hæmorrhage, such as epistaxis, &c., was common, abortion was frequent, about 60 to 70 per cent. of pregnant women who have typhoid miscarrying, according to Kaminsky's statistics. They should therefore keep in mind a morbid state of the blood in Dr. Underhill's case ; and, further, as the kidneys finally did not act, the blood would become still more poisoned. Cases like Dr. Underhill's were rare, but they should be cautious in drawing conclusions. He had listened with great pleasure to the Paper.

Dr. JAMES CARMICHAEL thought Dr. Underhill had done well in recording this case. He had had some experience of abortion in typhus and small-pox. When resident-physician in the Infirmary he had seen several hundred cases of typhus ; of these three or four aborted. One woman, at the seventh month of pregnancy, did not abort, however, and ultimately was delivered at the full time. When practising in Burntisland, there was an epidemic of small-pox, but only two abortions occurred. He had always observed the labours were remarkably easy.

The PRESIDENT remarked on the interest of the case. Fortunately his experience of diphtheria in pregnancy was *nil*. He certainly could not imagine a more anxious and distressing case than the one Dr. Underhill had just recorded. Conclusions as to the onset of labour in Dr. Underhill's case were dangerous and difficult, all the more that they did not yet know what started

normal labour, and consequently could not be expected to be able to define with accuracy the bearing of a particular lesion in inducing it. One of the latest views on this subject, and one which he had expected would have come out in this discussion, was that of Leopold—viz., that it was due to an accumulation of blood in the uterus charged with CO_2 , owing to progressive thrombosis of the uterine and placental veins during the latter months of pregnancy. If this theory turned out to be true, it would lend support to Dr. Underhill's view of the causation of labour in his case. The conclusions Dr. Underhill had drawn as to the effect of diphtheria on pregnancy were not, however, very strongly borne out by his cases, as Dr. Simpson had already shrewdly remarked. It was interesting to note that there was no diphtheritic endometritis in these cases, as one would have naturally expected. He had seen one case of typhoid fever at the fifth month of pregnancy, with a temperature as high as 103° , but the gestation was uninterrupted. He had previously read a Paper to the Society, showing that they were too much afraid of abortion in these cases. While he was glad that his own experience in this complication of pregnancy was *nil*, and hoped it would remain so, he felt at the same time that it was of the highest importance, in order to help us to form correct views on these rare occurrences, that these cases, sad as they were, should be carefully reported. Only in that way could definite opinions regarding such complications be ever obtained.

Dr. WILSON drew attention to the influence of relapsing fever on pregnancy. He remembered one case well where the patient aborted. When pregnant women took this fever, they usually aborted; and if so, they generally died. It was noteworthy in Dr. Underhill's case how much tracheotomy relieved the patient.

Dr. GEORGE DICKSON had attended a case of semi-confluent small-pox where the patient went to the full time. He was unable to vaccinate the baby.

Dr. UNDERHILL thanked the Society for their reception of his Paper. He wished to point out that he had guarded his conclusions, seeing they were based on only two cases. In the case specially recorded the patient was ill for seven days, and, but for the operation, would have died undelivered. He thought still that the diphtheritic poison had little to do with the labour, which was probably brought on by carbonic-acid poisoning.

OBSTETRICAL SOCIETY OF DUBLIN.

Meeting, Saturday, December 20, 1879.

E. B. SINCLAIR, A.M., M.D., President, in the Chair.

Midwifery Diploma.

The following Resolution, having been moved and seconded, was unanimously adopted ; and the Hon. Secretary was requested to forward a copy of same to the Registrar of the University of Dublin, with a request that he would submit it to the Board at their next meeting :—

“RESOLVED—That this Society views with much satisfaction the establishment of a University degree in Midwifery, whereby this department of the healing art is raised to a level with medicine and surgery, the status of its practitioners is enhanced, and the reproach which rested upon it is completely and for ever removed.

“It is further a source of no small gratification to observe that the University which has taken the initiative in thus recognising the importance of obstetric medicine and surgery is that of Dublin—a city long distinguished for its successful cultivation and teaching of the art of midwifery, and now by its University being first in the race of enlightenment to elevate the third estate of medicine to a social equality with her two imperious sisters.”

Ovarian Tumour.

Dr. W. C. NEVILLE said : Dr. Kidd has asked me to bring under your notice a tumour which he removed some time ago from a patient in the Coombe Hospital. The patient was a little girl, age two years and eleven months. When only two months old, her mother had first noticed a hard lump situated in the left iliac region. This had gradually increased in size without causing much distress until three months before her admission to hospital, from which time it had increased rapidly in size, pushing up the intestines, and impeding the action of the diaphragm. It thus gave rise to much dyspnœa and pain, while the child was rapidly emaciating, and had lost all appetite.

Examination showed that the abdomen was convex and symmetrical, except some slight bulging on the left side of the umbilicus, where palpation revealed the existence of fluid To

the right of, and a little below, the umbilicus, a small plate of bone, about $1\frac{1}{2}$ inches long by 1 inch broad, was felt in the walls of the tumour. Elsewhere the tumour felt smooth, firm, and tense. The girth at the level of the umbilicus was $22\frac{1}{2}$ inches. From the anterior-superior spine of the ilium to the ensiform cartilage on the right side measured $7\frac{1}{2}$ inches, and on the left $8\frac{1}{2}$ inches.

The diagnosis then made was that the tumour was an ovarian dermoid cyst, and it being obvious that the child's only chance of life lay in its early removal, Dr. Kidd performed ovariectomy, removing the tumour, which I lay before you. The operation was one of exceptional difficulty, the tumour being universally adherent, and possessing no distinct pedicle. The child died, apparently of shock, about two hours after the operation. No post-mortem was allowed.

The tumour weighs 1 lb. and 5 ozs. It consists of one large cyst, which was tapped during the operation, and of a more solid portion, 5 inches long by $4\frac{1}{2}$ inches broad, in which a great number of smaller cysts are embedded. The large cyst held about eleven ounces of a turbid, grey-coloured fluid, alkaline in reaction, specific gravity 1020, and containing numerous oil globules, large and small granular cells, some pavement epithelium, and cholesterine crystals, together with a number of blood corpuscles. After remaining for some hours in a basin, this fluid set into a semi-jellyish, viscid mass. The cyst wall is thick and smooth on both its surfaces; at the base of this cyst, and jutting into it from the most solid portions of the tumour, is a somewhat conical mass, covered over with a white, greasy, sebaceous matter, exactly resembling in appearance and feel the *vernix caseosa*. From the surface of this mass some scattered, short, light-coloured hairs can be seen growing. Beneath this mass can be felt a large bony body, with processes stretching out into the substance of the tumour.

Making a longitudinal section through the tumour, it is seen to be trabeculated, with solid or semi-solid masses projecting into the open spaces. In general appearance one of these masses much resembles liver substance. Many small and medium-sized cysts are seen scattered through the tumour—some filled full with the white sebaceous matter, containing sometimes loose hair, and others with a pale or straw-coloured viscid matter of about the consistency of cervical mucus. The smaller cysts are arranged,

some in the walls of the tumour, or arranged beneath them in a honeycombed fashion. The larger cysts, more irregular in shape, occupy the central portions of the tumour, and communicate with one another.

The plate of bone felt through the abdominal walls is now to be felt in the outer wall of the solid portion of the growth.

So far, no teeth have been found in this tumour, the examination of which is, of course, as yet incomplete. Examined microscopically, we shall be better able to define accurately its nature.

Two Cases of Warty Growths on the Vulva.

By WALTER G. SMITH, M.D.

The two cases which, by permission of your Council, I submit to the Society this evening, appear to me deserving of record, on account of their comparative rarity, as well as of their diagnostic importance; and I hope that some of the members of this Society may, out of their wide experience, be able to adduce additional cases in illustration of the condition described.

In January, 1876, Mrs. C. brought two of her children—Christina, aged ten years, and Marcella, aged five years—to the Adelaide Hospital for advice concerning some peculiar growths which had appeared on their vulvæ a few months previously. The parental history may be given in a few words. The mother of the children had been married sixteen years, during which time she contracted ten pregnancies, seven of which went to full time. Her first pregnancy aborted at three months and a half, in consequence of a fall, and her other mishaps resulted either from falls or frights. Of the five children now living, the eldest is fourteen years, and the youngest four years, and none of them ever suffered from any disease or eruption of the skin. She herself has always enjoyed good health, and never had occasion to consult a doctor. Her husband is a very healthy man, and, by a former wife, had two children—both deceased. Neither the man nor his wife is liable to warts.

About six months ago, without apparent cause, the younger child, Marcella, was observed to have some warty growths at the lower part of the vulva, and at or about the same time the elder girl, Christina, became similarly affected. In both children the complaint began with itching, without any preceding discharge. The itching persisted, and became so intolerable at night that they

were impelled to tear themselves, and even to draw blood. Except in walking, little other inconvenience was felt, and no pain was experienced during micturition or defecation. The children never sleep together—the elder sleeps by herself, and the younger with her aunt. They were carefully looked after, and never allowed to be dirty. Their general health is undisturbed; there is no evidence of syphilis about the head, eyes, mouth, teeth, or throat; the inguinal glands are not notably swelled; and neither of them has a speck on her body, except on the genital regions.

I will now describe in more detail the appearances the genital organs presented at the date of the first examination.

Christina.—The entire pudendum is transformed into a mass of pinkish-red warts. The growth is sharply circumscribed on all sides, and in general outline resembles, to use a botanical simile, a gigantic stoma, with its two guardian cells. The warts vary in size from almost imperceptible granules up to the size of a large pea at the upper part. Both the labia majora and minora are involved, and the relative form of the labia is strictly preserved. A slight mucous discharge moistens the clefts between the papillary growths, and there is no tendency to bleeding, unless the parts be roughly scratched.

A circle of dry, pediculated warts is disposed around the anus, but not a trace of a wart, sore, or other evidence of transmission by contagion is to be seen on the adjacent surfaces of the thighs. The summits of the warts are round or flat-topped, quite smooth and glistening, and they feel firm and horny to the touch. The warty growths cease at the entrance of the vagina.

The child, although naturally pale, is hardy and strong, and has not, and never had, leucorrhœa.

Marcella.—In this child the growth extends from the lower third of the vulva to behind the anus, occupying the whole perinæum. Its form is much more irregular than in her sister's case, and more closely resembles syphilitic condylomata. The warty growth projects to the right side, and overhangs and completely conceals the anus. On the inner aspect of the labia majora, at the upper part, are about a dozen small, dry, flat, and pointed warts, several of which are distinctly pediculated. As is the case with her sister, no warts occur on the sides of the thighs in contact with the labia. On the back of her left hand is a small sessile wart, precisely similar in appearance to those on the upper part of

the vulva. Within the last two months the vulvar growths have somewhat lessened in size.

Treatment was confined to local measures, and a great variety of topical applications were tried, such as calomel fumigations, linimentum calcis, lead lotion and black wash, glycerin of tannin, &c. But nothing did the least good; on the contrary, by the middle of April the growths had increased in size, were more irritated, exuded an offensive discharge, and the pruritus assumed an aggravated type.

I then suggested to the mother of the children the propriety of having the growths removed by surgical means, and advised her to place them in hospital under the care of a surgical friend. This advice evidently did not commend itself to the mother, for she ceased to bring the children, and I lost sight of them until the succeeding November, when the mother again brought the girls to me with the information that they had been under the care of an "old woman." I examined the children with interest, and found that Christina was very much better. The excrescences were reduced considerably in size, especially on the left labium, all pain and itching had ceased, and the child was able to play about all day. The warty growths on Marcella, the younger child, although not so much lessened in size, were clean and free from smell. A fortnight later I had another opportunity of examining them, and was surprised at the remarkable improvement which had taken place. With the elder girl, the red, warty growths had almost completely disappeared, the labia were pale, limp, and nearly of normal appearance, save for some small ridged scars on their upper part. The younger girl seemed perfectly cured, except for one or two minute specks near the commissure of the vulva, and the labia presented a normal appearance.

Observing a white powder adhering to the labia, I endeavoured to collect some of it for chemical analysis, but the "old woman," who was present, was too sharp for me, and declined to let me have any, saying that her secret was her own, and she would not part with it. The application caused the children no pain, and was followed by a wash to prevent the warts growing again. It may be reasonably conjectured that the white powder used by the "old woman" was a preparation containing white arsenic.

Let me now add a few words respecting the nature of the vulvar growths on these girls. My first impression (and, indeed, that of others also who saw these cases) was that the growths

were of syphilitic parentage—a species of venereal condylomata, in fact ; but the family history, the aspect and condition of the little patients, the mode of origin and the distribution and progress of the new growths, together with the total absence of other tokens of syphilis—congenital or acquired—negatived this view. The importance of a correct diagnosis on this point need scarcely be insisted on, were it not that some authors appear to hesitate to admit the occurrence of non-venereal warts on the female genitals.

The suggestion then occurred to myself and others that the growths represented a form of elephantiasis of the labia majora, but several circumstances—*e.g.*, the age of the patients, the great rarity of the affection in this country, and the absence of hypertrophy of the subcutaneous connective-tissue—were opposed to this diagnosis. At the same time it is not amiss to remember, as Virchow teaches, that acuminated condylomata sometimes assume, on the prepuce and on the vulvar labia, a considerable development, and form vegetations the size of a nut or an apple, and that it is scarcely possible to separate them with precision from warty elephantiasis (*"Pathologie des Tumeurs,"* 1867, Vol. I. p. 341).

The conclusion arrived at was that these multiple growths were nothing more nor less than an exaggerated development of small pointed warts (acuminated condylomata), or papillomatous excrescences, originating in the papillary layer of the skin of the labia, quite independent of venereal disease or of any constitutional affection, and not even traceable to local irritation. The growths come under the heading of the circumscribed warty forms of Virchow's great group of Fibromas, which include diffuse forms of overgrowth—*e.g.*, elephantiasis, as well as nodular and tubercular forms—*e.g.*, common warts.

Several of the authors on diseases peculiar to women, whom I have consulted, either omit all allusion to the occurrence of non-specific warts on the genitals or pass them by with a few words. Dr. Churchill (*"Diseases of Women,"* 6th Edition) refers to a case he saw in conjunction with Dr. Wilmot in which the external organs were one mass of warts covering and blocking up the vulva, and this in a child not more than ten years old. Dr. Graily Hewitt (*"Diseases of Women,"* 2nd Edit., p. 642) merely remarks that warts of non-syphilitic character, and resembling those seen on other parts of the body, may be found growing on

some part of the vulvar surface, and states that the diagnosis of the syphilitic from the non-syphilitic cases is not usually a matter of any difficulty.

Sir C. Clarke, writing nearly sixty years ago ("Diseases of Females," Vol. I., p. 283), refers at some length to warty tumours on the vulva, and takes occasion to mention that "it is not necessary to the formation of these tumours that the part should have been the seat of any syphilitic complaint, for they may arise in parts which have never been so affected." The fullest description of them which I have seen occurs in the treatise of Dr. Ashwell on "Diseases Peculiar to Women," 1844, from which I will quote a few sentences. He says:—"The external genitals are liable to warty tumours, which vary much in their appearance and size as well as in the symptoms which attend them. They are frequently the result of syphilitic disease, or they may arise from neglect of cleanliness. Sometimes there is no evident cause; but they are apt to be induced by any disorder which keeps up a chronic inflammatory action in the sexual organs. They may attack the labia or nymphæ, or, beginning at either, may extend to and involve the other parts of the vulva." But, from what follows after, it seems doubtful if Dr. Ashwell drew a distinction between warty growths and diffuse hypertrophy (elephantiasis) of the vulvar tissues.

Dr. MACSWINEY said, that Dr. Smith appeared to have entirely excluded syphilis as a cause of the warts. As regards the specific applied by the old woman, it is not easy to understand how it could have been white arsenic. Persons outside the medical profession could not get white arsenic unless it were mixed with indigo or soot. No doubt it might be bought, although not easily. He thought it more likely that the powder was alum or sulphate of zinc. He had more than once found powdered alum to be used among the poor for discharging sores or warty growths on the groins or between the genitals of children.

Dr. CRANNY asked did Dr. Smith make any trial of the acid nitrate of mercury. He (Dr. Cranny) had found it useful in cases of such growths, but they were syphilitic ones.

Dr. M'CLINTOCK said he had seen in adults conditions similar to these in the drawing which Dr. Smith had laid before them; but if an adult came to him with one or both labia of the pudendum so affected it would be very hard to convince him that there was not something of syphilis in the case. No doubt in the

present case there was no ground for supposing that there had been any syphilis. That there might be warty conditions of the vulva independent of any syphilitic causes he did not for a moment attempt to deny.

Dr. BYRNE said he had never seen any case like the present except in connection with syphilitic disease. Had Dr. Smith used chromic acid with his patient? They must remember that children were very often inclined to have warts. He had seen some children whose hands and bodies were all covered over with them; and possibly in the present instance it merely happened that the warts, instead of growing over the surface elsewhere, appeared on the vulva.

Dr. HENRY KENNEDY said that there could be no doubt but that warts occurred from syphilis and without it. Dr. Kidd would bear him out with respect to a case that they had both recently seen of a young unmarried lady, where there was no reason whatever to suppose the existence of any syphilitic disease, and who was a great sufferer from warts growing round the meatus, of small size, which gave great annoyance.

The Society then adjourned.

Meeting, Saturday, January 3, 1880.

Uterine Polypus.

Dr. S. R. MASON exhibited a polypus which had been attached to an inverted uterus.

Ellen Farrell, aged fifty-five years, was admitted to the chronic ward of the Coombe Hospital on December 29th, 1879.

The surface of the polypus was irregularly lobulated; at its lower part it was commencing to slough, and it was attached to the uterus by a narrow pedicle about one inch in length.

History.—Married eight years; was never pregnant; menstruation always regular until sixteen years ago, when it became profuse, lasting five or six days, unaccompanied by pain. Her condition continued unchanged until three years ago, when menstruation began to be irregular, occasionally missing a period or two, and then returning in increased quantity. Two years ago it stopped altogether, and since then she has felt much stronger and better. About a month ago she felt a tumour in vagina which she said used to come down during coughing or when

taking exercise. A day before admission to hospital, while straining at stool, the tumour protruded through the vulva.

On examination, shortly after admission to hospital, a large fibrous polypus was found protruding through the vulva. When the finger was passed up along what appeared to be the pedicle of the polypus, the sharp edges of the constricting os could be distinctly felt, but the fundus of the uterus could not be felt above the pubes, and as the rectum was loaded with fæces no further examination was made.

1st January, 1880.—Patient having been chloroformed, it was found, on passing the finger into the vagina, that the os uteri could not be felt, the vagina being continuous with the tumour all round, and the finger in the rectum felt a cup-like depression at the summit of the vagina, proving the uterus to be inverted. On passing the finger down from the uterus to the tumour, a ring of thickened tissue could be felt separating the uterus from the pedicle of the tumour. On the right side of the uterus the opening of the Fallopian tube could be seen. The pedicle was divided close to the tumour with an *ecraseur*, thus avoiding the danger of opening into the peritoneum. The uterus was then with some difficulty restored to its normal position, the fundus being first pushed within the os uteri with the finger, and then completely reinverted by pressing it upwards with a long steel instrument with a bulbous extremity. During the entire operation the patient did not lose two drachms of blood. Patient is now doing well.

A case somewhat similar to this one is recorded by Dr. M'Clintock, but with this difference—that after the removal of the polypus Dr. M'Clintock did not make any attempt to replace the uterus, on account of the “patient’s extreme intolerance of any manipulation;” but one week afterwards he ligatured the uterus close to the vagina; the ligature was left on for three days, and the uterus was then removed with an *ecraseur*. This patient subsequently recovered.

Some years ago Dr. Roe successfully removed a polypus from an inverted uterus, but his patient would not permit any attempt to reinvert the uterus.

During the session before last Mr. Macan brought before this Society a case in which he first removed a polypus from an inverted uterus; then, having failed in an attempt to reduce the inversion, he amputated the uterus.

The PRESIDENT.—Had the bleeding ceased before she was admitted ?

Dr. MASON.—She had had no bleeding for two years.

Dr. KIDD said the woman was one of the *irritable genus*. She would not allow a full and satisfactory examination of the tumour until they had her under the influence of chloroform, and the result was that until she was on the table he had no opportunity of making an examination himself. On passing his finger into the vagina, he was at once struck by the absence of the os round the neck of the tumour ; and on further examination he was able to distinguish the opening of one of the Fallopian tubes on the surface of the tumour. On getting the tumour between his fingers, he came to a part where he could trace the rounded outline of the fundus as distinguished from the pedicle of the tumour. That and the opening of the Fallopian tube enabled him to say where the uterus ended, and where the tumour began. As the patient was fully under the influence of chloroform, he had no opportunity—even if he believed in it—of putting the old-fashioned test to trial of the uterus being sensitive and the polypus not. Having ascertained where the uterus ended and the tumour began, he applied the wire of the ecraseur close to the tumour. He then proceeded to divide it, and in doing so worked the ecraseur more slowly than they ordinarily did. He felt that hæmorrhage might occur, and that if it did there would be no satisfactory way of controlling it. At first there was a considerable gush of blood when the tumour was removed, but that very soon subsided. He then attempted to reduce the inverted uterus. The orifice of the vagina was exceedingly small—the woman never, he believed, having had children—and it had undergone atrophy through age. It was impossible, without violence, to get his hand into the vagina. He succeeded in introducing his two forefingers, and having got the uterus between them, he compressed it as much as possible. The compression was, of course, imperfect. Having kept up the compression for some time, he placed his finger against the fundus, where the polypus had been attached, and made pressure for some time without effect. Then it began to yield, and in a moment it went up. Not liking to use a sound, and fearing that his finger might go through the tissue of the uterus, he passed the end of a round-handled instrument two and a half inches into the uterine cavity. No hæmorrhage afterwards took place. The vagina

was then plugged. Yesterday morning the plugs were removed, and that morning the woman was, to all appearance, well ; the uterus was in its place, and the condition of matters was quite normal. It was not easy to reinvert the uterus under circumstances of the kind, but, if it could be done, it was much better than amputation. One interesting feature was the length of time the tumour must have lain in the uterus without producing serious bleeding. It was rather large and hard for a uterine polypus. Menstruation seemed to have ceased in the woman some years ago—very much at the period at which it usually does. Whether the tumour was lying in the vagina before she came into hospital, and was expelled by one effort, they had no facts to enable them to know. There had been no expulsive pains of any kind. When it came through the vulva, which occurred during defecation, there was a considerable amount of hæmorrhage, which frightened her.

Dr. ATTHILL observed that the case was in many respects like one which he brought before the Society in the course of last session. The difference between the two chiefly consisted in the position of the polypus. In his (Dr. Atthill's) case the uterus was inverted by a fibrous tumour attached, by a wide base, to the fundus. He enucleated it, and subsequently, without great difficulty, reinverted the uterus. The patient had since recovered her health perfectly. She was a young woman, and after the reinversion the uterus was found to be very large—three and a half inches in length. The inversion was of considerable standing—at least eight or ten months. A most interesting part of Dr. Kidd's case was that it confirmed a remark made by Dr. White, of Buffalo, U.S., America, that the cases in which reinversion was really difficult were those in which the uterus was imperfectly involuted. That was so in cases which occurred after labour, when attempts were sometimes made to reinvert the uterus before complete involution. Cases of inversion by tumour were not by any means so difficult of reinversion as those latter.

The PRESIDENT.—Involution had nothing to say to Dr. Kidd's case. Did not the easy way in which the uterus went up show that it had not been inverted for a very long time ?

Dr. KIDD.—Dr. Mason told me that when he first examined the case he felt the neck of the uterus encircling the tumour, so that there could not have been complete inversion for any length of time.

Gynaecic Summary.

On the Indications for Treatment of Versions and Flexions of the Uterus, by B. S. Schultze.—The author remarks that the views of authorities upon the mechanical treatment of alterations in the position of the uterus differ as much now as they did thirty or forty years ago. He recapitulates his views as to the importance of the folds of Douglas in conditioning the occurrence of forward or backward displacement. Shortening of these folds from inflammation pulls the cervix backwards and upwards, and so exposes the posterior aspect of the body of the uterus to the intra-abdominal pressure, which, driving the body downwards, produces ante flexion. Conversely, relaxation of the folds of Douglas allows the cervix to sink downwards and forwards, and the intra-abdominal pressure to fall on the anterior surface of the uterine body, and hence retro flexion. If the uterus is more rigid than usual, either through past or present metritis, then anteversion or retroversion is the result respectively, instead of the corresponding flexion. This he holds to be the etiology of the great majority of cases. Occasionally he thinks anteversion or ante flexion arises from peritoneal adhesions between the fundus uteri and the bladder, and retroversion or flexion from parametric fixation of the cervix uteri in front. He does not hold, like many authors, flexion to be a source of more suffering than version. The symptoms especially credited to flexion are dysmenorrhœa and sterility, which are attributed to narrowing of the internal os, and consequent hindrance to the exit of blood and the entry of semen. There is no doubt that the acute flexion of the infantile type often coexists with infantile narrowness of the canal and the orifices; also that with a sharp flexion uterine catarrh, especially in women who have ceased to menstruate, favours the occurrence of stenosis and obliteration of the os internum. But in the majority of cases of flexion of the uterus during sexual life the diagnosis of stenosis only means that there is difficulty in getting a too rigid sound past the point of flexion. Flexion of the uterus does not *per se* produce stenosis. As to sterility, in the majority of women in whom the cause of it is on the male side, the uterus is ante flexed, because in the majority of healthy women the uterus lies in that position. He does not think flexions without effect in producing sterility, but that

sterility in cases of flexion is most often due to coexisting complications, and is only seldom a mechanical result. In cases of shortening of the folds of Douglas, when the inflammation has entirely passed off, and not the slightest tenderness of the part remains, the author has treated the resulting ante flexion by methodical stretching of the folds, by pulling the vaginal portion downwards and forwards. But this indication can seldom be carried out, because the part in question usually is sensitive, and such traction may then rekindle inflammation. In such cases, on the contrary, great relief may be obtained by pushing the vaginal portion yet further backwards, by means of a figure-of-8-shaped pessary. By this the ante flexion is increased, but the folds of Douglas are protected from further tension, and thus not only are the pains relieved, but the disappearance of inflammatory processes is favoured. Reposition of the displaced uterus by the finger or sound he looks upon as useless, for the flexion returns when the replacing force is removed. Vaginal pessaries he thinks only give relief by fixing the cervix and diminishing the tension of Douglas's folds. Intra-uterine stems certainly straighten the uterus, but the position in which they keep the uterus is as far removed from the normal one as is an ante flexion. That they have been followed by good results he attributes to treatment of other kinds simultaneously carried out, and possibly to contraction of the uterus excited by the presence of a foreign body. In cases of displacement the author recommends treatment of the accompanying metritis and parametritis. These conditions are often caused and kept up by accompanying endometritis, and the retention of catarrhal secretions in the uterine cavity. This is best treated by dilatation of the cervix, and the washing out of the uterine cavity with a 2 per-cent. solution of carbolic acid. The result of treatment on these principles is, that the symptoms will disappear, even though the shape of the uterus be unaltered, menstruation will become painless, and the patient will conceive with an acutely ante flexed uterus. With retroversion and retro flexion it is quite different. Here the displacement is usually not the result but the cause of the morbid phenomena, which must be treated by mechanically raising the uterus to its normal position. In the beginning it may be enough simply to use means which excite uterine contraction. But if the displacement be pronounced, the uterus must be replaced by bimanual manipulation, and kept in its proper position by a pessary. If

reposition in this manner be difficult, he holds it better to anæsthetize the patient, by which we can not only replace the uterus, but accurately ascertain the condition of the pelvic organs, than to replace the uterus by means of the sound. The latter proceeding is often possible, but much harm may be done by it. No pessary can bring the uterus into its normal position. By manual reposition under anæsthesia, it may be possible to break down adhesions which retained the uterus in its abnormal position. He has done this without bad results. The pessary required is one which shall draw the cervix backwards, which being done, the abdominal pressure will keep the uterus in a state of anteversion. He uses one of the shape of a figure 8, the cervix being embraced and carried backwards by the posterior ring, and one like a Hodge, the anterior end of which, instead of curving downwards, is carried so far upwards and backwards, and is so widened, that it presses back the cervix. He uses the latter when the vaginal walls have not sufficient tone to retain the former. The bowels must be kept regular; the vagina must be frequently washed out, and over-filling of the bladder must be avoided. Nutrition must be improved; the best general tonic, where possible, being sea bathing. While wearing the pessary, pregnancy often takes place, which is a favourable occurrence for the patient, for with care during the lying-in the recurrence of the displacement may be prevented. The inflammatory complications of the retroverted and retroflexed uterus require no special treatment, the correction of the displacement will cause them to disappear. Backward displacements of the uterus are those in which mechanical treatment is followed by the most strikingly beneficial results. He has used intra-uterine stems in the treatment of retroflexion, but has obtained better results without them. He believes the time is not far off when his hope, expressed seven years ago, that these instruments may come to be seen in historical collections only, will be fulfilled.

On the State of the Cervix Uteri in Pregnancy, by Dr. Felix Marchand.—The author remarks, that the statement originally made by Bandl, that the upper part of the cervix contributes to the formation of the cavity which receives the ovum, is controverted, both on clinical and anatomical grounds, by many gynæcologists. Küstner has since sought to prove that, during the latter months of pregnancy, the upper part of the cervical canal becomes widened in a funnel-like manner, and so serves to

receive the lower pole of the ovum. He bases his opinion on the two grounds, first that the insertion of the membranes is at the upper part of this widening, and not at the so-called Müller's ring ; and, second, that the whole surface between Müller's ring and the insertion of the membranes is covered with epithelium like that in the cervical canal. But the correctness of Küstner's observations has been doubted. Marchand has carefully investigated the matter, partly by examining the preparations of Küstner, and partly by the macroscopical and microscopical study of fresh specimens prepared by himself. He completely confirms the statements of Küstner. The widening, he says, can be seen in every uterus during the latter half of pregnancy, and gradually increases towards the end of gestation. What extent of variation from the rule may be present in individual cases, or what differences exist in this respect between primiparæ and multiparæ, he is not yet able to state. This widening takes place especially at the expense of the posterior and lateral walls, and as the widening of the upper part of the cervix progresses, the lower part becomes shortened, and the angle formed by the direction of the upper and lower parts of the cervical mucous membrane, seen in section, more and more approaches a right angle, as the widening increases with the advance of gestation. His preparations have been submitted to Professors Kölliker and Olshausen. Illustrative plates accompany the paper.—(*Archiv für Gynækologie*, Bd. xv. Hft. ii. 1879).

Phlegmasia Alba Dolens.—M. Damaschino presented to the Société Médicale des Hospitaux at their meeting on March 12th, 1880, some preparations illustrating the formation of blood clots in the above disease. A section made on the sixth or seventh day showed a homogeneous coagulum, of which the peripheral layers were very adherent to the inner tunic of the vessel. A little later a similar section showed a series of modifications in the thickness of the clot, and the formation of embryonic elements of different forms. At the twentieth day new vessels were perceived in the coagulum ; finally, at the end of two or three months, the vessels were found the better formed nearer the periphery of the clot, while at its centre there still existed little interstices not yet completely organised. The practical result of these researches was to show that it was not until the twentieth day that adhesion to the vessel wall was so firm that danger from embolism need not be feared. Therefore, a patient with phlegmasia dolens

should be kept strictly at rest for at least three weeks.—(*Gazette Hebdomadaire de Méd. et Chir.* 2 Avril, 1880.)

Quinine as an Ecbolic.—Dr. G. S. A. Ranking, of Chester, states that he is so strongly convinced of the ecbolic properties of quinine that he never fails to ask as to the presence of pregnancy before ordering a dose of quinine. He thinks, also, that the administration of quinine in doses sufficiently large to check ague is a certain cause of menorrhagia, if given within a week or ten days of the period. In cases where there was ague and menorrhagia combined, he has given arsenic for the ague, and found that the menorrhagia was improved.—(*Practitioner*, Feb. 1880.) Dr. Neale, on the contrary, says, that an intimate acquaintance with malarial fever in Java has convinced him that although patients taking quinine occasionally miscarry, yet that the tendency to miscarriage is not increased by taking quinine.—(*Practitioner*, March, 1880.)

BOOKS, PAMPHLETS, &c. RECEIVED.

“Ovariectomy.” By W. F. McNutt, M.D., &c. (Reprinted from the *Western Lancet*, January, 1880.)

“Beiträge zur Klinischen und experimentellen Geburtskunde und Gynäkologie.” Von Dr. Ferd. Adolph. Kehler. Zweiter Bd. erstes Hft. Giessen, 1879 (Trübner & Co.)

“On the Treatment of Endometritis.” By J. Hickinbotham, M.D., &c. (Reprinted from the *Birmingham Medical Review*.)

“Notes on the Anatomical Relations of Uterine Structures.” By T. H. Buckler, M.D. Baltimore, Maryland, U.S. (Reprinted from the *Boston Medical and Surgical Journal*.)

“De la Lésion des Organes Urinaires, pendant l'Opération de l'Ovariectomie.” Par M. le S. G. Eustache, Professeur de Clinique Chirurgicale, Lille, &c. Paris, 1880.

“Weitere Untersuchungen über das Skoliotisch und Hyphoskoliotisch Rachitische Becken.” Von Dr. G. Leopold. Mit 1 litho. Tafel. (Separat abdruck aus dem Archiv für Gynäkologie. Bd. xvi., Hft. 1.) Leipzig, 1880.

Communications received from Dr. E. A. Aust Lawrence, Bristol; Mr. Nelson C. Dobson, Bristol; Messrs. Griffith and Farran, London; Mr. Lawson Tait, Birmingham; Dr. Savage, Birmingham; Dr. Percy Boulton, London; Dr. Potter, London; Dr. T. J. McKie, South Carolina, U.S.

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THE OBSTETRICAL JOURNAL

OF
GREAT BRITAIN AND IRELAND.

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No. LXXXVII.—MAY 15, 1880.  
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Original Communications.

ON OÖPHORECTOMY.

By THOMAS SAVAGE, M.D., M.R.C.P. Lond.
Senior Surgeon to the Women's Hospital, Birmingham.

AMONG the means at our disposal for giving relief or cure to one section of suffering humanity, one of the most important that has for a long time been suggested is that of Oöphorectomy, or Normal Ovariectomy, which was first practised by Dr. Battey, of Georgia, and by some is called after his name. This operation was first performed by him in 1872, and has since been repeated by Thomas, Peaslee, Goodell, Sims, Engelmann, in America; Budin and Hegar on the Continent, and others in this country, of whom, to my own knowledge, Wells, Alexander Simpson, Tait, Heywood Smith, Malins, and myself may be cited as examples.

That there is a field open for the operation, can, I imagine, be doubted by no reflecting and observing surgeon, and its present true position may, perhaps, as I think, be described by saying that it has a *raison d'être*, that under certain abnormal conditions it is a justifiable proceeding, but that its limits are not as yet perfectly defined.

Another point for consideration in discussing this subject is that at present Oöphorectomy has not been sufficiently long before the profession for the large majority to consider and discuss it in all its bearings, and especially that section who confine their practice to the more purely medical aspect of gynæcology, and

who, not being operators, are unaware of the ease and comparative safety of its performance, and of the morbid conditions often present in the ovaries, which, though often known only afterwards, have justified it to the operator. If the influence of these physicians be persistent, of course it will do one of two things—either altogether prevent Oöphorectomy becoming a justifiable and recognised operation in certain cases, or, at all events, greatly retard its general acceptance by the profession. In the former event this would, to my mind, be a very serious loss; in the latter, possibly gain might be the result, as the whole subject would be regarded from every point of view, moral, social, medical, with a dispassionate consideration, which must ultimately terminate in a just and wise verdict. Objection to this operation, on what may be called moral and physical grounds, is taken by a large section of the profession practising gynæcology in this country, including men of such learning, unimpeachable integrity, and high-souled honour, that, though thinking their judgment may in this particular be liable to err, as may that of every one, the fact of their and others' opposition, who are to some extent our fathers and authorities, must lead us to reflect, lest in our enthusiasm at finding a new remedy we go to the opposite extreme, and apply it in cases where it is neither necessary nor justifiable. There is a fashion in physic, and the history of medicine teems with instances where a new remedy on its introduction has been lauded as a specific for all sorts and manners of disorders. So let it not be for Oöphorectomy. If it be found to be unworthy of our regard, on any ground, let it die the natural death of so many new therapeutic agents; but if within certain limits, and under due safeguards, it prove to be a useful means of relief or cure, as I believe it will be found to be, let it have full consideration, and become the proper treatment for proper cases. Emmet, in his recent work, strongly condemns it, and Dr. West, in his last edition, utters likewise no uncertain sound on the subject.

The conditions for which it may be resorted to are named by Sims as follows, and they appear to be complete:—

1. "In cases of amenorrhœa, where there is no uterus, or only the rudiments of one, or where there is an incurable atresia uteri, and the menstrual molimen produces such violent disturbance of the whole system as to destroy health and endanger life, removal of the ovaries is the only means of permanent relief."

2. "In cases of prolonged physical and mental suffering, attended with great nervous and vascular excitement, produced by perturbed menstrual molimen, whether menstruation be absent, scanty, or otherwise, this operation is justifiable after all the usual remedies fail to relieve."

3. "In cases of incipient insanity and of epilepsy depending upon ovarian and uterine disease, this operation is justifiable after all other remedies have failed to cure."

4. "In cases of fibroid tumours of the uterus, attended with incurable hæmorrhages that endanger life, when the tumours cannot be safely enucleated and removed, this operation may be resorted to with the hope of arresting the bleeding, and the prospect of diminishing the tumours."

5. "In cases of chronic pelvic cellulitis and of recurrent hæmatocele, when the attacks are traceable to the disturbing influences of the menstrual molimen, we may have recourse to this operation as a *dernier ressort*."

Two important elements to be borne in mind in coming to a decision as to what is, and what is not, a proper case, are : first, the justifiability ; and second, the safety. The justifiability in the particular instance may often be a question of much difficulty to solve, for it has to be regarded from several points of view, social, moral, and physical. The safety ; here we are in a much better position than when the operation was first suggested, for abdominal surgery, having made such strides even within the last three or four years by the successful practice of ovariectomy and abdominal section for other kinds of tumours, and even occasionally for purposes of diagnosis, we may predicate very strongly in favour of a successful result in a given case. The chief difficulties which are to be met with are the presence of adhesions, whereby the ovary is so glued down as to be quite incapable of a ligature being applied. Had the operation been carried out earlier these might have been overcome, and this is a strong argument against too long delay. I think we often see a case where we are inclined to say, that if the symptoms continue for very long, it may become a suitable one for Oöphorectomy, and where, when operated on, adhesions would be found to exist, as in the first and fourth of the cases related further on. I am convinced that had they been submitted very much earlier to Oöphorectomy, the result would have been different. Perhaps, as time goes on, and our experience increases, we shall be better able to differ-

entiate the cases which it is not desirable shall be allowed to wait until adhesions frustrate our attempts.

One great argument will always be, that, given a patient, who, though suffering intensely, and whose life is miserable, but yet whose life is not likely to be shortened by the disorder, we are not justified in submitting her to the risks incidental to an Oöphorectomy, even for the what, by some men, will always be considered remote chance of cure, even though she does not lose her life thereby.

But it must be granted that an exploratory incision, performed with all the care and caution that are now deemed necessary, is an operation of very slight risk, and removal of the ovaries is only a slight addition to this, if no adhesions exist, and such is generally the case. I am not aware of any number of cases, done so far, to show the frequency with which adhesions have existed, so as to prevent the operation being completed.

The condition of ovaries removed may be grouped, I think, into three classes—the cystic, the enlarged, and the shrivelled.

1. The cystic: Here the stroma of the ovary seems to be occupied by small cysts containing limpid fluid. The gland is considerably larger than normal, owing to the presence of the cysts, and I do not know why so much pain should be suffered, as the contrary is the case in ordinary cystoma.

2. The enlarged ovary: Some ovaries that I have seen removed have been considerably larger than normal without apparently any other abnormal character. (Hyperplasia.)

3. The shrivelled: Where the ovary is much diminished in size; very puckered on its surface, and called by West and Tait a form of cirrhosis: by the former, to be a sequel to fever, and by the latter a consequence of the exanthemata. My own observation has not been sufficient to express an opinion upon this point, or to say exactly how far these cirrhotic ovaries differ from the ordinary puckerings that are well known to exist on the healthy ovaries of women who are nearing the climacteric, in whom menstruation or rather ovulation has for some years been gradually disfiguring the ovarian surface. The true cirrhosis would seem to be associated with a change in the areolar tissue at the expense of the true ovarian. Oöphorectomy, while it brings about the change of life, does not in all cases put a stop to menstruation; at all events for a certain time after the operation. But sufficient is not yet known of the after-effects produced by it.

I am inclined to think that local pains are the more constant phenomena associated with the ovaries which are increased in size ; and that the reflex neuroses are more usually the effects of the so-called cirrhotic condition.

The difficult point to determine appears to be not so much in the few very severe cases, tending to produce epilepsy or insanity, which may occasionally present themselves before us, or in the rare instances of defective development, but in the much more numerous class of ovarian dysmenorrhœa and allied conditions where the life of the patient is rendered miserable to herself and friends by the distress she suffers in connection with the menstrual molimen : a condition usually attended with some marked change in the ovaries themselves. In such the distress, though not likely to shorten life, is often so great as to make life not worth living. The real pain is often aggravated by the emotional character of the individual, and hence the difficulty of judging in what individual cases of this kind it is justifiable to resort to this expediency of giving relief, or, as is most probable, of effecting a cure ; a cure, though it must be borne in mind, effected at the expense of the patient's sex, and all that that involves. Beyond the cessation of menstruation little is known of the after-condition sexually of those who have undergone Oöphorectomy. In Battey's cases no difference was made in the sexual desire. In some cases of removal of double ovarian tumour the same has been observed ; this is distinctly noticed by Wells and others.

Then in justifying the operation to oneself, having already received the patient's consent, how much value is to be attached to that consent, when given in a state of physical and mental distress, and catching at anything that offers a trace of hope, and when also it is possible that afterwards, when cured, and the patient realises to the full the extent of her loss, she may regret having followed the doctor's advice, and would vainly wish for a restitution of what cannot be. I think the question requires much more to justify it in the case of the unmarried than of the married ; many a single girl, in her suffering would consent to the operation, thinking she would not in the future care for a family, who would, as years went by, yearn for what is impossible, the fulfilment of the dearest hope and greatest desire of nearly all women.

There is also a moral element which must at all times enter

into consideration, apart from the justifiability of the operation from the purely medical aspect. One may even conceive that in the hands of an unprincipled patient or doctor, or friend, it is an operation which might open the door to almost unlimited abuse.

To prevent the patient getting into the morbid habit of a craving for opium and its preparations, or for alcohol, as there is often an undoubted tendency, may be urged in some few cases as an additional reason in favour of the operation.

It would seem scarcely necessary to say that the mode of operation for removal of the ovaries should be through the abdominal wall, both on account of its ease and safety. By it we see what we are doing and may be able to overcome some adhesions.

The other method which was recommended at first, was reaching the ovaries through the vagina, but here the limited space, the difficulty of dealing with adhesions, and I imagine the greater danger, make it an operation much less desirable than the abdominal method, and I daresay it will not again be attempted by any experienced ovariologists. The removal of both ovaries has been considered as a *sine quâ non* for obtaining the relief which Oöphorectomy is designed to give.

My own experience extends to four cases bearing on this subject, of which the following are brief notes :—

CASE 1.—Jane F., single, aged thirty-one, been ailing for some years with general ovarian and menstrual pain, clearly pointing to the ovaries as much as to the uterus, which was enlarged, patent, retroflexed, and discharging profusely at the periods, and, between these times, a copious yellow matter. She had taken all kinds of remedies, and had been submitted to an endless variety of pessaries and intra-uterine applications, including dilating the uterus and swabbing with nitric acid. In June, 1878, she had become very thin, and having heard of Battey's operation from me, she pressed me very much to perform it; in the full consciousness of its risks and uncertainties, she accepted all the responsibility, going so far as to give me a written acknowledgment thereof. It should be added that the operation was concurred in after consultation with my colleagues, Mr. Furneaux Jordan and Mr. Tait. The left ovary was removed without difficulty, but the right was found to be so closely bound down by adhesions to the brim of the pelvis as to be quite incapable of removal, and I was reluctantly compelled to leave it and close the wound. The patient did well. Although no one told her the

result of the operation, yet during her convalescence she voluntarily remarked to me that I could only have removed one ovary, as the pain on the left side was so different, while that on the right side was as before. She knew this was my first operation of the kind. Twelve months after—*i. e.*, in 1879—she pressed me to operate again, thinking that with increased experience I might succeed in getting away the right ovary. Abdominal section was again made in September, 1879, with, unfortunately, the same result. The ovary was too deep down for it to be safe to break it up piecemeal: too much attached to pelvic brim to enable me to ligature it. With my present experience I should try what a ligature through the broad ligament would do, to control, if possible, the vascular supply. There is no doubt but that in this case removal of one ovary did some good, and I believe removal of both, had such been possible, would have effected a cure. Her life is certainly very much less unbearable now than before June, 1878.

CASE 2.—Harriet D., aged thirty-one, single, suffered somewhat similarly to the last case, but had no chronic metritis. She was worn down by suffering to be a miserable object. She had had all kinds of remedial agents applied, both local and general; and when the operation was proposed to her she was only too glad to submit, but had to wait some time to gain the assent of her friends. This at length was given, and the operation was performed 4th January, 1879. Both ovaries were removed easily, and she did well afterwards. Since the operation there has been a marked improvement in this patient's condition: she is able to work at her dressmaking, and may be said to suffer no pain. She has not menstruated since. She is still thin and poor-looking, but is very different to what she had been for many months before the operation. It was gathered from her that she had never had any sexual desire, and there is no change in this respect since the operation. Before, her life was undesirable; now, it is at least bearable.

CASE 3.—Ellen Rowley, aged exactly eighteen, came as an out-patient. She is well developed, breasts fair size, pubic hair rather over-abundant. Has never menstruated. Has been to a general hospital, where she was told there was found to be something wrong after an examination under ether. Admitted into Women's Hospital, and on 7th February, 1880, under ether a thorough examination was made by myself. The meatus and

urethra are normal ; the labia majora and nymphæ are well-developed ; but there is no vaginal aperture. With the sound in bladder and two fingers in the rectum these two viscera appear to be closely united without any vagina between. There is to be felt high up, in the middle line, what feels like the cervix of an infantile uterus. There is clearly no collection of retained menses, as felt below or by conjoined examination. An endeavour was made by scalpel and tearing to find a passage to the uterus ; but after a long attempt and incising to the depth of about two inches, it was abandoned. The bladder and rectum being so close together, it was concluded that an arrest of development of the genitals had occurred, terminating at what was thought to be a rudimentary uterus.

The patient came for treatment on account of the effects of a monthly molimen which was causing her trouble ; it showed itself in general pains through the pelvis, and intense pain in the head, which lasted a week of every month : so much so that latterly she was quite unable to go to work during the time. It had been in existence about two years, but the last six months was much exaggerated. She also felt very sick at the time, but did not vomit. She was possessed of sexual feelings. Seeing that this molimen pointed to the presence of ovaries, that its effects were becoming more severe from month to month, and that there was not atresia, but in reality absence of a vagina ; and also that, probably, as time went on, a menstrual discharge would arise from what was distinctly felt to be a uterus, and which, of course, in such event could not find exit, I called a consultation of my colleagues, and proposed to perform an Oöphorectomy. This seemed to me to be a most suitable case for the purpose, and if the operation is justifiable at all (as I believe it is in many other conditions besides), it is in such an one as this. The operation was performed on the 14th February. The right ovary weighed 80 grains after the removal, and the left 55, and both were occupied by large cysts, being more than mature follicles.

The tubes were normal, with properly developed fimbriæ, but as I did not feel a fundus uteri, I imagined I had been mistaken in the previous examination ; but by carefully tracing the tube, it being put on the stretch by the ligature before its severance, I found that they both converged towards the middle line, and ended in a small nodule, between the size of a bean and a pea, which was the representative of the uterus, and was what I had

felt per rectum. This arrest of development is interesting as showing the mode of development, to a certain extent, of the genital organs.

The late Randolph Peaslee, in 1877, writes of such a case as this, as follows :—"If the woman has a vice in conformation, such as no vagina or uterine cavity, and still has ovaries, and a menstrual molimen occurring every month, always attended by severe pain, and progresses until the mental faculties begin to be affected, we have a clear case for the operation. In such cases no surgical operation can be performed by which she can be made to menstruate normally, and yet she possesses ovaries which will evidently ruin her in time, perhaps make her epileptic, perhaps idiotic, and if no remedies can be used which will remove the symptoms, even palliatively, I should consider it my duty to remove the ovaries."

CASE 4.—Ellen H., aged twenty-eight, married four years, never pregnant, never well after marriage, since when she has had dysmenorrhœa. Had been told by her medical attendants that there was not a proper passage; has painful micturition and always suffers from dyspareunia. The cervix is conical, and when admitted into hospital, a small intra-uterine stem was inserted; the right ovary was felt to be large and tender. After a few weeks she went home; and on February 24th, 1880, was again admitted with the same symptoms. She stated also that every month the pain was increasing, and she was now quite unable to do even her small household duties. In addition to the periods being sometimes much worse than at others, she states that about six months ago she had a severe attack of what she calls "inflammation of the bowels," which placed her life in danger, attended more especially with pain in the left side of abdomen, probably an attack of pelvic peritonitis involving the left ovary. The full nature of the operation was explained to her, and she, with her husband's concurrence, readily assented to it.

When the abdomen was opened on February 28th, 1880, the left ovary was very shrivelled and completely tied down, so that no ligature could be placed round it. I therefore passed one round the left Fallopian tube, about one inch from the uterus; this I thought would, at all events, limit the vascular supply in some way, especially as I must have included the ovarian ligament and also some of the broad ligament. I proceeded to do the same on the right side, but the ligature, while being tightened, cut

its way out ; the right ovary was quite glued down, but felt to be of ordinary size. I then tried to isolate the ovary a little, and in doing so picked out of it several bits of calcareous matter. I then passed a double ligature as low down as I could, and tied each separately on either side ; I found that though I had gone as far down as possible, I had not been able to tie below the ovary, but had included a small portion of ovarian tissue within the ligature. The ends were then cut off and the wound closed.

The change since the operation, though so short a time has elapsed, is remarkable. In the first place, after so tedious and risky an operation, the pulse has only once reached 90 ; then her expression of face and the freedom from pain make me think that she bids fair to be hereafter reckoned as a cure.

It was found at the operation that some small intestine was adherent to the abdominal wall, a little to the left of the linea alba, thus confirming the truth of the patient's statement of the previous attack of " inflammation of the bowels."

A CASE OF DIABETIC ERYTHEMA : ITS CAUSATION AND TREATMENT.*

By PERCY BOULTON, M.D., M.R.C.P. Lond.

Physician to the Samaritan Free Hospital.

THE following case was under my care a few weeks back at the Samaritan Hospital, Out-Patient Department :—

E. T., aged fifty-six, is the mother of five children. She came to me complaining of heat, inflammation, and itching of the whole pudenda.

She had been under the care of several medical men but had received no relief, and as the urine had not been examined, I presume that the case had always been diagnosed as one of simple pruritus vulvæ, so common in stout middle-aged women.

Though it is pretty generally known, and is stated in most modern works on the subject, that erythema pudendi is common in diabetes, in practice it is often forgotten unless some of the other well-marked symptoms attract attention to the true nature of the disease.

* Read before the Medical Society of London.

In the case of E. T., the pruritus vulvæ was an all absorbing trouble, and had I not suspected diabetes and tested the urine, I too should have probably been misled.

The erythema proved to be of diabetic origin—a form stated to be due to the irritation of saccharine urine.

I am inclined to think that it is not *altogether* due to this cause, but that there is some such neurotic connection as in many other skin diseases.

The erythematous condition is so frequently out of reach of all possible contact with the urine, while it is confined to those parts which Laycock used to call sexual—viz., those covered with hair after the age of puberty—the pudenda, belly, axillæ, and between the breasts.

That there is some close sexual neurotic relationship between these parts, is seen during menstruation and pregnancy, when they sometimes become more highly pigmented than the rest of the skin, and also in the increased axillary secretion and characteristic odour which is often so marked at the catamenial periods, as to be diagnostic.

The sexual impotence common in diabetes would indicate similar reflex nerve exhaustion. To my mind the saccharine theory does not cover the whole ground, for if the eruption which occurs at a distance from the urethra is due to sugar being excreted in the sweat, as has been suggested, it should appear in the crystalline form at those most remote parts, as well as about the vulva, and experiments with grape sugar on the healthy subject should reproduce the erythema; moreover, if due to sacchariferous sweat, the hands and feet would suffer, rather than the groins and belly, and the disease be characterised by a moist, rather than a dry skin.

The impotence common in diabetes points to a similar reflex nerve exhaustion, and the sexuality of the seat of the eruption appears to me significant of a neurotic relationship.

Although diabetes is not classed amongst nervous diseases, its distinguishing feature, viz., the undue conversion of glycogen into glucose, is of neurotic origin, and can be artificially produced by irritation of the floor of the fourth ventricle, or, as shown by Professor Cyon, by dividing the eighth cervical and first dorsal nerves at their point of union.

Recent experiments, made in Paris, have shown that polyuria and glycosuria always follow the injection of sugar into the

veins of dogs, which would indicate that these symptoms are the natural result of blood so charged going to the kidneys. The treatment in this case does not call for many words.

Starchy and saccharine food was prohibited. Codeia was given to reduce the irritability of the vagus in doses of at first one grain, and afterwards two grains, three times a day. This drug does not cause as much derangement as opium, but it is necessary to keep the bowels open daily, or it causes very uncomfortable fulness of the head.

A saline purge was given as often as seemed necessary, and locally the parts were smeared with a grain of morphia rubbed into an ounce of vaseline.

Matters very rapidly improved, and, although the diabetes was not cured, the patient discontinued her attendance at the hospital as soon as she had got rid of the tormenting and intolerable heat and itching which brought her originally under treatment.

The new cupric test-pellets, prepared by Mr. Cooper, of 26, Oxford Street, as suggested by Dr. Pavy, were here shown, and strongly recommended as convenient, stable, trustworthy, and portable.

CASES ILLUSTRATING SOME OF THE DIFFICULTIES OF DIAGNOSIS IN ABDOMINAL TUMOURS OF WOMEN.*

By NELSON C. DOBSON, F.R.C.S.

Surgeon to the Bristol General Hospital.

SOME time ago I brought before the Branch three cases of ovarian tumour which I had removed. The cases which I bring before your notice to-night are not cases of ovariectomy, but are intended to illustrate some of the difficulties which attend the diagnosis of abdominal tumours in women.

The diagnosis of such abdominal tumours, in many cases, is full of interest and anxiety to the ordinary practitioner of medicine; an interest and anxiety which is considerably enhanced when on the question of correct diagnosis hangs that of inter-

*Read before the Bath and Bristol Branch of the British Medical Association.

ference or non-interference surgically. There is no domain of surgery that has more brilliant success to record, and there is also scarcely any other in which surgical procedures are occasionally met by such unusual and unexpected conditions.

CASE 1.—M. F., æt. seventeen, single; admitted March 10th, 1879; is a fairly healthy-looking and cheerful girl, of fair complexion, complaining of a large swelling in her abdomen. Family history is perfect, and there is nothing in her mode of life or habits to account for the swelling. Catamenia, which commenced at thirteen years of age, continued quite regular up to her admission into the hospital; she has never before been ill. Her present illness began nine months ago, when she noticed by accident a swelling in her left side. All her functions have been healthily and regularly performed, but the tumour is increasing considerably in size, and she is getting thinner. On admission, a large tumour was found in the abdomen, distending the abdomen very considerably, and though the swelling reached over to the right of the umbilicus, it was most conspicuous on the left; the surface of the abdomen was smooth and natural, no distended veins, girth at umbilicus thirty-five and a half inches. The abdomen was too tense to test the mobility of the tumour by the hand, but as it did not change its position when the patient was placed on the right side, I concluded it was bound down by adhesions to the left side. The dulness was absolute in the left flank and lumbar region, and extended over the front of the abdomen beyond the umbilicus into the right flank; in tracing the outline of the swelling, it was found to be uneven and knobby; the lineæ albicantes were not separated; there was faint and indistinct fluctuation in parts of the swelling, especially felt when the left side is percussed, and on the right felt low down. No tenderness or crepitation; uterus normal in every respect; a little fulness felt in vagina anteriorly; urine normal—pulse 100.

April 16th.—Catamenia three weeks late for the first time.

The diagnosis at this time was a left multilocular ovarian cyst with colloid contents, though the exact diagnosis was not satisfactorily established to my mind; but the balance of opinion was in favour of this diagnosis. A consideration of the foregoing symptoms seems to justify this conclusion. It was thought that puncture with a small trocar would not aid the diagnosis, and therefore it was decided, after due deliberation, that an explora-

tory incision should be made with the view of determining the nature of the tumour, and, if it proved to be ovarian, that I should enlarge the incision and remove the growth. Accordingly, on April 17th I made an incision about five inches long in the linea alba; about one and a half pints of ascitic fluid escaped, and a cyst presented itself, which looked so much like one of the cysts of a multilocular ovarian tumour, that I punctured it, but nothing but blood and soft *débris* flowed through the trocar; thinking I might have hit on a semi-solid cyst, I punctured another cyst lower down, with like result. I then passed my fingers down into the pelvis and could not find that the tumour was connected with the ovary at all; it was free all round as far as I could feel, and notwithstanding that it was now evident that the tumour was not ovarian, I felt sorely tempted to try and remove it, but as I could not make out even now where the mass really sprang from, and as it was undoubtedly malignant, I finally settled to do no more, but to close the wound and put in a drainage-tube; and the post-mortem proved that it was a very fortunate thing for me that I did not attempt to remove it.

The patient died on April 21st, five days after.

Post-mortem showed the tumour to be a malignant growth from the peritoneum. Even now it was not easy to say absolutely what portion of the peritoneum it sprang from, but certainly it involved chiefly the great omentum, and appeared to be growing between its layers, spreading itself to the left side, and being firmly attached to the region of the kidney, pushing the small intestines to the right side and pressing upon the colon. The kidney was healthy; there were large blood-vessels as big as one's little finger coursing over the surface of the mass, which was polycystic, some of the cysts containing as much as a pint of colloid matter, but most of them were much smaller, the solid mass was soft and greyish, and was seen under the microscope to consist of round and oval cells, evidently a cystic sarcoma; the mesenteric glands were slightly enlarged. After the cysts had been emptied the solid matter weighed 8 lbs. 10 ounces. Though freely movable in front, it was so intimately connected behind with large vessels and small intestines at points, that it could only be removed by cutting through these parts, and in one sense it was satisfactory to prove that removal during life was altogether impracticable, as when the patient continued to live on, I was in fear lest I should after all have failed to remove a growth which could have been

removed. The post-mortem showed that I had selected the proper course.

This case was one of unusual difficulty as regards diagnosis; the history, the unilateral beginning, the evident multilocular cystic character of the growth, the vaginal and uterine examination, and the percussion dulness, all pointed in a remarkable manner to ovarian disease, and yet the disease proved not to be ovarian. The unevenness of the margins of the tumour, and its evident close connection low down on the left side, led me at first to suspect that possibly the growth might be a renal cyst, but the solid matter it contained and the normal condition of the urine put this out of the field.

Barnes, in his "Diseases of Women" says: "Some of the most difficult cases to diagnose are those of malignant growths from the omentum. Sometimes they may be turned out after separating adhesions. I removed such a mass weighing 28 lbs. These growths are usually of irregular shape; fluctuation is indistinct or wanting. The aspirator trocar draws nothing excepting a few drops of blood."

CASE 2.—A. B., twenty-four, sent to me from Clevedon. She is single, delicate, and slightly emaciated. Admitted August 13th, 1879. Had been under the care of Drs. Pizey and Skinner, to whom I am indebted for the history of the case. "She was healthy till she was fifteen years old; at the age of sixteen the menses disappeared, they having been previously fully established. The abdomen increased in size, and as time went on the case proved to be one of ovarian dropsy. She was some years ago seen on one occasion by Mr. M. Clarke, who also looked upon the case as ovarian. Five years ago in crossing a stile her foot slipped and she struck her abdomen forcibly; she experienced a sensation as if something had burst. She was very sick and feverish for three days [peritonitis?], passed large quantities of water per urethram, and her figure became natural. The menses, which had up to this time been absent, reappeared, and her health was perfectly good for three years. Two years ago she again increased in size, and this time Mr. Pizey says it was ascites she suffered from. She was tapped for the first time on October 10th, 1878, of seven gallons, and an ovarian cyst of small size was observable on the opposite side to the former one." After this date and before the patient came under my notice she was tapped as follows:—

January 11	1879	.	.	.	5½ gallons.
March 20	"	.	.	.	6½ do.
May 15	"	.	.	.	6½ do.
July 3	"	.	.	.	6 do.
August 9	"	.	.	.	6 do.
October 10	1878	.	.	.	7 do.

Total . . . 37½ gallons.

I would here call your attention to the enormous total of 37½ gallons in ten months ; both Dr. Pizey and the patient agree that it was gallons. I am generally sceptical as to gallons. Notwithstanding that she had been tapped on August 9th of six gallons, her abdomen measured on August 14th, five days after, 43 inches, and this for a very small, spare woman, was a large measurement. This was the date on which I first saw her. There was then a large quantity of fluid in her abdomen, but the walls were peculiarly lax from previous over-distension, the wound of the tapping had not quite healed. I was able very easily to feel two large tumours, which floated readily in the abdomen, and which appeared capable of being moved to any distance in the very capacious belly. The percussion wave of ascites was very superficial and distinct, and by a sharp, quick kind of pressure through the abdominal walls the solid tumours could be felt. The lineæ albicantes were not well marked, and the umbilicus was flat. She was resonant in both flanks and dull over centre of abdomen ; legs œdematous, but not so much so as before tapping ; urine scanty, loaded with lithates but not albuminous ; especially resonant on the right side.

Uterus normal, except os slightly contracted ; no vaginal fulness. Considerable dyspnœa when abdomen fully extended.

Diagnosis—fluid, chiefly ascites, probably encysted, with ovarian tumours behind.

The percussion sounds were those of ovarian dropsy ; but from the ease with which solid tumours were felt behind, I thought the fluid must be ascites, though on changing the position of patient the percussion note did not alter as it should in ordinary non-encysted ascites.

At a consultation it was decided to wait for a week or two until the patient was inconvenienced by the fresh accumulation of fluid, and then tap by a small incision and explore. But meanwhile, from some cause or other, the patient got an attack of

acute peritonitis, of which she died before anything was done for her, on August 29th, twenty days after her last tapping, and thirteen after her admission.

In the post-mortem room she measured fifty-three inches round her umbilicus. No fat in abdominal walls. The intestines were bound down to the upper and right side of abdomen, probably the result of old peritonitis some years ago, when there was a history very like a burst cyst. There was universal and recent peritonitis of the parietal and visceral peritoneum. The peritoneum was everywhere very much thickened; there was an enormous quantity of ascitic fluid, here and there separated by gelatinous septa of lymph. There were also two large semi-solid tumours, one growing from each ovary, with a short broad pedicle. These could have been readily removed by operation; and had it not been for the accident of the peritonitis, it is possible I might have removed them and saved the patient. There was nothing discoverable at the post-mortem that would indicate the bursting of a cyst, which seemed probable from the previous history.

The features in this case to which I would direct your attention are those of difficulty of diagnosis as regards the fluid; there are many other points in the case of exceeding interest, but I am chiefly concerned at present in clearing up the diagnosis between ascites and ovarian dropsy; this may seem at first sight to be a very easy matter, and so it is in many cases, but occasionally, as in this case, the diagnosis is not so easy. The percussion sounds were *not* those of ordinary ascites, the fluctuation wave was very distinct and superficial, just what you would expect in ascites, but, on the other hand, the most distinct and superficial fluctuation wave I ever felt was that of a unilocular ovarian cyst, which I successfully removed; even the character of fluid removed by the tapplings varied, on some occasions it was pale straw colour, and on one occasion I was informed that at the last it was rather thick, tenacious, and sticky, giving the idea of ovarian fluid; there were thus, then, several elements in this case showing the difficulty there occasionally may be in diagnosing between ascitic fluid and ovarian. I have seen other cases in which ascites has so far simulated ovarian dropsy that it was only after tapping that the diagnosis has been satisfactorily made.

The last case with which I shall very briefly trouble you is that of E. M., æt. forty-four, who came over from Ireland to be under my care for the purpose of ovariectomy. She is a spare,

single woman, grey for her years, with a history of menorrhagia, and a large abdominal tumour occupying the front of the abdomen larger than a uterus at full term of gestation. The enlargement has been going on for some years; she says she noticed it first on the left side, it now inclines rather to that side, but occupies chiefly the front of the abdomen, which is rounded in shape and projecting considerably; dull on percussion all over the front of abdomen and resonant in flanks; the tumour is very elastic, and firm and smooth, and gives a very deceptive kind of fluctuation on palpation. The uterus was thought to be normal; the sound, which was passed with considerable difficulty, registered only the normal length of cavity. My obstetric colleague, Dr. Lawrence, saw her at my request, and finding some difficulty in passing the sound, passed a long probe six or seven inches into the uterine cavity. This cleared up a very material point in diagnosis, and illustrates an important example of trusting too implicitly to the uterine sound. This, as I have said, only passed the normal length, whilst the probe passed six or seven inches.

The elasticity of the tumour was so great that some who saw the patient thought it must contain fluid. An aspirator trocar showed the tumour to be solid, as proved by the sense of resistance and absence of fluid, and the tumour is, I have no doubt, a very large uterine fibroid.

I have selected these three cases out of several, as showing the difficulties that may arise in the diagnosis of solid, semi-solid, and fluid abdominal tumours in women. One soon learns in actual practice that the hard and fast lines of the diagnostic value of certain signs as set down in books cannot always be relied on, and I have come to the conclusion with regard to abdominal tumours that almost "all things are possible;" but I have come to another practical conclusion; that when we are in difficulty, and the case seems to call for a decision, a judiciously planned and carefully performed exploratory operation may in such cases be undertaken to decide the point, though I am aware that there will still be, in the present state of our knowledge, a minimum of cases in which even an exploratory incision will not clear up the diagnosis. It might possibly be thought that there could not be two opinions about the case of solid uterine fibroid I have mentioned, but the fluctuation-feel was so deceptive that some who saw the case thought there must be fluid. Spencer Wells remarks, "that it is

almost impossible, under certain circumstances, even with the most experienced assistance, to form an absolutely right opinion about suspiciously placed fibroids ; he says, "it has happened to many surgeons, myself among the number, to have commenced operations as ovariectomy and even removed tumours from the abdomen under the impression they were dealing with diseased ovaries, when in reality they were pedunculated fibroids of the uterus." And Barnes says, "I have known a solid fibroid of the uterus communicate a sense of fluctuation that imposed upon skilful observers." I have already quoted Barnes in support of my own difficulty of diagnosis in the case of the semi-solid malignant tumour of the omentum ; and the more common difficulties of diagnosis (as illustrated by my second case) between fluid accumulations in the abdominal cavity and ovarian cysts must be familiar to you all. I have purposely abstained from the differential diagnosis of ovarian tumours from other conditions not actually met with or illustrated by the cases I have given. My cases are only a selection out of many ; if they were further multiplied, they could do no more than those I have already quoted to show some of the difficulties that occur to one in dealing with this class of cases.

VERATRUM VIRIDE IN THE TREATMENT OF ECLAMPSIA AND TETANUS.

By THOMAS J. MCKIE, M.D., of Woodlawn, South Carolina,
U.S. America.

THE December number of the OBSTETRICAL JOURNAL of Great Britain and Ireland contains some remarks by Dr. Frank Kenyon, of Scipio, N.Y., on the treatment of eclampsia with veratrum viride, which present some apparently novel features in the therapeutics of this disease, the painful character of which may offer sufficient apology for an additional word or two, even from this obscure quarter.

More than two years ago, at a meeting of the Edgefield County Medical Society, one of its members, while remarking upon the therapeutic value of veratrum viride, took occasion to say, that among other valuable uses he had found this drug singularly efficacious in the treatment of puerperal eclampsia. He then

went on to give at length reports of several highly unfavourable cases, in which the remedy had been used with unvarying success. As his mode of administration differed materially from that of Dr. Kenyon both as to quantity and interval, and each was somewhat at variance with the generally received ideas of practice with this potent drug, the substance of the Society's remarks may not be without interest.

As soon as the patient is seen, and the presence of the disease established, almost the limit of Dr. Kenyon's dose is given at once. Sixty drops of Norwood's tincture was mentioned as a safe and proper dose, given at intervals of an hour, until its physiological effect is fully established, or till convulsive movement ceases.

Heroic as this medication may seem—in reality must be—it is mild in comparison with that mentioned at the same time by the same member, in his treatment of tetanus with the veratrum, which was described as being equally successful under the use of *tablespoonful doses* given as in the puerperal cases. This seemingly reckless administration of a powerful agent is only mentioned, because of the interest which may be felt in any method of treatment which offers even small hopes of success in the management of a malady at once so painful and unamenable to all ordinary medication.

The sometimes drastic effect of much smaller doses of veratrum in other classes of disease, has always deterred the writer from resorting to such apparently dangerous measures. Besides, the slow action of this drug when administered by the mouth, and consequently the much valuable time thus consumed, have induced the writer in almost all cases requiring the prompt and complete action of this remedy, to substitute the hypodermic method, as being equally safe, and far more prompt in effect; and also as requiring a much smaller quantity for a dose than when given in the usual way. Thus given, either alone or with morphia, in any case requiring the use of these agents, the effect is often as surprising to the patient as it is gratifying to the physician.

ON THE CLASS OF CASES IN WHICH VAGINAL ANTEVERSION PESSARIES GIVE RELIEF TO SYMPTOMS.*

By G. ERNEST HERMAN, M.B. (Lond.)

Assistant Obstetric Physician to the London Hospital.

THE object of the present Paper is to describe those cases in which, if an anteversion pessary be properly applied, relief to symptoms can be foretold with some degree of certainty; and in which there is therefore a corresponding amount of reason in the belief that such benefit is due to the wearing of the instrument. It is not intended to describe every kind of case in which the wearing of an anteversion pessary *may* be followed by relief to symptoms, nor to discuss the whole subject of anteversion of the uterus. All that I shall attempt will be to describe a definite class of cases, which can be relieved in a manner which will be stated, and to submit the explanation of their treatment (so far as it can be explained) which I hold to be correct. I undertake this task because it seems to me possible to define these cases more precisely than has been done in any work upon the subject with which I am acquainted; and therefore to more accurately select the cases for the application of anteversion pessaries, to use these instruments with a more definite aim, and with a more certain prospect of benefit.

I shall first briefly set forth the theoretical basis of the practice. If the explanation be accepted merely as provisional, it will be enough for my present purpose. Such rules of treatment as follow from it I ask you to test by your own experience.

I shall first ask you to look at the structures forming the floor of the pelvis in a somewhat different way from that in which a person would who derived his impression of it from the anatomical text books in ordinary use. For pointing out this more correct way of regarding the structures occupying the pelvic outlet, we are largely indebted to Dr. D. B. Hart, of Edinburgh.† The peritoneum, muscles, ligaments, fasciæ, fat and cellular tissue in the floor of the pelvis, form a compact layer, which may be considered as a diaphragm, closing the abdominal cavity below, as the muscle which is called *the* diaphragm does above. This

* Read before the Hunterian Society, Jan. 14th, 1880.

† OBSTETRICAL JOURNAL, October, 1879, p. 447.

pelvic diaphragm is perforated by three openings: the urethra, a very small one; the rectum, a larger one, but closed by a strong sphincter; and the vagina. The vagina is not, as the ordinary pictures would lead one to think, a circular canal, running in a curve of which the axis of the uterus is a continuation; but is a transverse slit, into the top of the anterior side of which, nearly perpendicularly to it, the uterus is implanted. "By this vaginal slit we get the pelvic floor divided anatomically into two portions: a pubic anterior and a sacral posterior half." This slit, or, in other words, the vagina, is the weakest part of the pelvic floor—*i.e.*, the parts which bound it are those which most readily yield; the urethra being so small, and the rectum so firmly closed by its sphincter, as to be comparatively very strong. I do not propose to enter here into the causes of such yielding. "Of the two portions, the anterior or pubic receives the greater share of the intra-abdominal pressure." It therefore is commonly the case that the anterior part yields sooner, and more, than the posterior. Then we have what is called *cystocele*. When the posterior wall is the first to give, we have *rectocele*. Whichever part yields first, if it descends much, the cervix uteri and the opposite wall of the slit are dragged down also. But it may on the contrary happen that when a slight yielding of the pelvic floor occurs, the structures which support the uterus in its place being relaxed, that organ changes its position; its body sinks forward, its cervix goes back, and the angle formed by the axis of the uterus and that of the vagina becomes a smaller one. Now the cervix cannot go backwards without pulling on the vagina a little in the same direction. If the anterior wall have yielded slightly, so that it is tending to *cystocele*, this movement of the cervix uteri will, by pulling on it, obliterate the slight bulging downwards which it tended to form. When *cystocele* occurs, the descending anterior vaginal wall usually drags the cervix downwards and forwards, thus tending to produce retroversion. The same cause may thus produce in one case *cystocele*, in another anteversion; these conditions being to a slight degree antagonistic to each other, the occurrence of *cystocele* tending to prevent anteversion, and anteversion having a slight effect in preventing *cystocele*. The commonness with which retroversion is found combined with *cystocele*, and the infrequency of the association of *cystocele* with anteversion, is the clinical proof of the correctness of these statements. Separating, as we should do, that part of the phenomena

presented by such cases which is unimportant, from that which is essential, and considering chiefly the latter, we should regard both cystocele and anteversion as being instances of yielding of the pubic part of the pelvic floor. In the one class of cases descent of the anterior vaginal wall, with a tendency to retroversion of the uterus, is the first result of this yielding ; in the other, a falling forwards of the body of the uterus, with a corresponding backward movement of the cervix, which latter, pulling back the vagina, prevents its yielding from being at once apparent.

The foregoing forms a necessary part of this Paper, because it is in these two conditions—anteversion and cystocele—that anteversion pessaries are useful. I have pointed out what I take to be the essential pathological fact of these cases. It is a yielding of the anterior part of the pelvic floor, producing sometimes anteversion, more often cystocele, and occasionally both. I have now to describe the symptoms which this pathological condition causes. They are just the same, whether anteversion or cystocele have been the result of the yielding. They are few and simple, and are at once relieved when the yielding part is given the support of a suitable pessary.

The symptoms are two : (1) irritability of the bladder, and (2) a sense of "bearing down." The patient tells us that when she feels a desire to micturate she has to do so at once, or else her urine runs from her ; and she may further state that the inclination recurs with excessive frequency, it may be every five or ten minutes, so that her clothes are often wetted. This symptom is made worse by exertion, for almost any effort which brings the abdominal muscles into play causes a gush of urine. The calls to micturate become so frequent during walking that such exercise becomes very unpleasant to the patient. The other symptom is what is called a "bearing-down" pain—that is, the patient feels as if something would fall from her : she has a vague pain which she may describe as aching, or dragging, or forcing, felt diffused round the loins, lower part of abdomen, and thighs : a pain which is not severe, or paroxysmal, but which annoys the patient chiefly by its constancy ; which is not localized in one or more definite spots, but diffused over the parts I have mentioned. Like the vesical disturbance, it is made worse by exertion. Both symptoms are relieved when the patient lies down. Although we may have various kinds of disagreeable sensations detailed to us by patients, yet, when analysed, they will be found to be variations of these

two symptoms. The amount of detail and variety in the description given by the patient will depend partly upon the amount of attention she pays to her own morbid sensations, and partly upon her command of language with which to describe them.

Whether the yielding of the pubic part of the pelvic floor has produced anteversion or cystocele, the symptoms are the same. That the symptoms just mentioned often coexist with anteversion of the uterus, has long been recognised, and it has been assumed by many that the anteversion was their cause : from which view it follows, that to relieve them it is necessary to correct the position of the uterus. To me, on the contrary, clinical evidence seems to show that the position of the uterus itself does not appreciably modify the symptoms which spring from yielding of the anterior part of the pelvic floor : and it therefore does not seem imperative to act on the position of the uterus in order to relieve them. To give relief, the essential thing is to support the pelvic floor, and if this be efficiently done, I do not believe that it matters in the least (so far as these symptoms are concerned) what the position of the uterus may be.

As I am here stating that which is contrary to a widely accepted opinion, it will be proper for me to briefly indicate the lines of argument which seem to prove the pathological and practical insignificance of anteversion *per se*. I will take here only clinical considerations. Increased weight of the uterus is sometimes spoken of as a cause of its anteversion ; and the pressure of its weight upon the bladder as a cause of vesical symptoms. Now, the uterus may be very big and heavy without any anteversion ; and may enlarge to a great size without bladder symptoms ever having been present. Therefore the supposed effect of its weight is not invariable (as, were it simply a mechanical consequence, it should be), and the degree of its heaviness is not the measure of the severity of the symptoms supposed to be due to its pressure. But there are other facts, which prove the insignificance of anteversion, and which are still stronger. First, it is admitted on all hands that some amount of anteversion is normally present when the bladder is empty. And often an extreme degree of anteversion is found without any of the symptoms which are commonly attributed to it. Second, symptoms such as are often found with anteversion, and which anteversion pessaries relieve, are just as often found without anteversion, or with a very inconsiderable degree of that change in position, and are then equally re-

lieved by the same pessary. And, third, symptoms associated with anteversion, and which anteversion pessaries relieve, are often just as well remedied by pessaries which increase the anteversion.

The yielding of the anterior part of the pelvic floor which produces irritability of the bladder and bearing-down pains, may, then, bring about cystocele or anteversion. With the former I am not aware that any other symptoms have been connected. But a great many more have been attributed to the latter. It is said that by the uterus being in the anteverted position are caused congestion of the organ, dysmenorrhœa, dyspareunia, pain in defecation, sterility, inability to walk, &c. The latter phrase, "inability to walk," is used in some works, and I quote it to point out that although the patient may truthfully use it in its colloquial sense, yet scientifically it is incorrect. "*Inability*" means want of power: that the patient is not *able* to walk. The patient with the condition whose symptoms I have described, if she refrain from walking, does so not because there is any deficiency of power in the muscles of locomotion, but because walking increases the pain or discomfort which she suffers. There is no uterine disease which causes inability to walk; but there are many which cause discomfort in walking, and among the conditions which do this is the one which also produces sometimes cystocele, sometimes anteversion.

As to the other symptoms I have quoted, I will not further enter upon the much discussed question as to whether anteversion of the uterus is adequate to produce them or not. For my own part, I have as yet seen nothing to make me believe that the fact of the uterus being in this position causes any such disturbances. The reasons that are thought by some to prove that it does seem to me quite inconclusive. If it be true that the symptoms frequently associated with anteversion, and relieved by anteversion pessaries, yet do not depend upon the position of the uterus, it will, *à fortiori*, seem unlikely that symptoms which seldom accompany that condition, and which are not relieved by anteversion pessaries, are yet a consequence of it. Putting aside the general question as to whether such results may or may not follow from anteversion, I say, without fear of contradiction, from experience, that where such symptoms are present, we cannot confidently predict relief from an anteversion pessary. There can be no doubt that this position of the uterus is met with along with the symptoms in question; but it is oftener found without them, and the symptoms

more frequently without the anteversion ; and there are many other causes which may produce the symptoms. If, then, the association of the two phenomena is not constant or even frequent, the only evidence that the symptoms depend upon the change in position of the uterus is their certain and speedy relief when the supposed malposition is corrected. Tried by this test, the theory which connects them with anteversion is found wanting. I do not of course, say that improvement in such symptoms will *never* follow the adjustment of an anteversion pessary ; but that in the majority of cases it will not, and that if, in such cases, we promise relief from the wearing of a pessary, the patient will generally be disappointed. But it is quite different with the symptoms I have first described. When bearing-down pain, and irritability of the bladder, are the only troubles of which the patient complains, and yielding of the anterior division of the pelvic floor (producing either anteversion or cystocele, as the case may be) is the only condition present which can produce them, if a suitable pessary be properly adjusted immediate relief will follow. We may confidently predict improvement, and our prediction will be fulfilled.

It is scarcely needful to mention that there are many other causes for each of these symptoms, and that if mechanical treatment is to be certainly successful, every other condition capable of producing them must be excluded. It is not necessary, nor, within my present limits, would it be possible, to describe at length the physical diagnosis of these cases, for the process is mainly one of exclusion. The chief points are these :—

1. The urine is natural, and on passing the catheter we find nothing wrong with the bladder, urethra, or its meatus.
2. When the patient is told to make an expulsive effort, the anterior wall of the vagina descends unduly, sometimes projecting slightly between the labia. Or it may be that there is a condition like that the occurrence of which in pregnancy Dr. Barnes has described under the name anterior vaginal roof-stretching ; the cervix uteri points towards the hollow of the sacrum, and the outline of a swelling like, and proved by bimanual examination to be, the body of the uterus, can be felt through the anterior vaginal wall ; the axis of the uterus, instead of corresponding to a line running from the coccyx to the umbilicus, approaches one running from the hollow of the sacrum to the symphysis pubis.
3. The uterus is quite movable ; there is no other tumour in the pelvis, and there is no marked tenderness of the internal or external genitals.

The question may here suggest itself—seeing that anteversion is sometimes a normal condition, and sometimes is associated with symptoms, and one of the indications of an abnormal state of things—is there a pathological degree of anteversion? Can a line be drawn between a degree of anteversion which is normal, and one which is not? I believe the only correct answer to this question is, that the degree of anteversion is no measure of the necessity for an anteversion pessary. The condition of yielding of the anterior division of the pelvic floor which gives rise to irritability of the bladder, bearing-down pains, and sometimes also to anteversion of the uterus, is pathological. The anteversion is an occasional consequence, and therefore sometimes one of the indications of this condition, but is not itself the cause of the symptoms, which are in no way modified by the position of the uterus. Where these symptoms are absent, no degree of anteversion requires treatment. If other symptoms than these two are present, it is unlikely that they will be relieved by an anteversion pessary, whatever extent of anteversion there may be.

The cases which I have just described I believe to be the only ones in which vaginal anteversion pessaries are certainly useful. I think that the symptoms are due to yielding of the anterior part of the pelvic floor, because they are relieved by treatment which either contracts this part, or pulls it up, or pushes it up. Anteversion pessaries do good in these cases, because their shape is such that they push up this part. Why this condition should cause symptoms is a question which I cannot here enter upon.

I have now to speak of the kind of mechanical appliance most suitable for these cases. The best treatment is of course that which counteracts this yielding with the least discomfort to the patient.

First, it is only in the slighter forms of this condition that a vaginal pessary will relieve. With a large cystocle we generally find the vaginal outlet so big that a vaginal pessary cannot be retained; in such a case we resort to other means, the consideration of which does not come within the scope of my Paper to-day.

There are many kinds of vaginal anteversion pessaries. In the catalogue of Messrs. Krohne and Sesemann, nineteen different ones are figured, and their list might be added to from the collections of other instrument-makers. The differences between many of them are very slight; and I shall not trouble you with

remarks upon all of them. The one which embodies in the simplest form the essential principle of all of them is Hitchcock's. It consists of an oval frame, with a transverse arch across it. The long axis of the oval corresponds to that of the vagina, and the transverse arch presses up the anterior vaginal wall. This may be called the typical form of vaginal anteversion pessary ; all of them contain these parts, variously modified, but many of the modifications are improvements, adding to the efficiency, or lessening the inconveniences, of the instrument. The forms which I find the most generally useful are the improved "cradle" pessary of Dr. Graily Hewitt, and Dr. Murray's modification of Thomas's anteversion pessary. In the "cradle" pessary, the transverse part which presses up the anterior vaginal wall takes its support from each end of the oval, the middle part of which is omitted. It results from this shape, that it is better grasped by the vagina, and gives a greater amount of upward pressure on the anterior vaginal wall, than any other pessary of the same size. It has no joints to retain dirt, no springs to get weak, and is made of vulcanite, the lightest, most cleanly, and least irritating material. Its disadvantage springs out of the same cause as one of its advantages, and is, that the irregularity in shape which makes it so well grasped by the vagina, also causes its larger sizes to be difficult of introduction. Its smaller sizes can, when desirable, be withdrawn and replaced by the patient herself. In Thomas's pessary, the transverse arch is kept raised by a spring, and, therefore, this part can be folded down on the frame, and the pessary introduced with comparative ease. But when *in situ*, the arch springs up, and its projection, together with the squarer shape of the anterior end of the frame, make the expulsion of the pessary a matter of greater difficulty. Besides the differences between the pessaries which I have pointed out, there are peculiarities, of which it is difficult to say in what they consist, in the vaginæ of different individuals, which will enable one patient to wear with comfort a cradle pessary, while a Thomas's of about the same size causes discomfort and less perfectly relieves ; and *vice versâ*.

(To be continued.)

Abstracts of Societies' Proceedings.

OBSTETRICAL SOCIETY OF LONDON.

Meeting, Wednesday, April 7, 1880.

Dr. W. S. PLAYFAIR, *President, in the Chair.*

Large Fibroid Polypus.

Dr. BANTOCK showed a specimen of uterine polypus which he had removed on February 26th, by the *écraseur*, and which was chiefly remarkable for its large size. The patient was a married woman, fifty-one years old, and the mother of three children. Symptoms had existed for six years, but the disease had not been recognised till about three weeks previously, when the tumour was discovered under an examination instituted for the purpose of ascertaining the cause of retention of urine, from which she was then suffering. Yet she presented the usual pale and waxy appearance so characteristic of the anæmia of these cases. The polypus was attached by a narrow pedicle. In its fresh state it weighed one pound three ounces. It belonged to the fibromyomatous variety, and before being cut into it presented that physical condition of elasticity which so simulates fluctuation, and which, in the sub-peritoneal variety, has so often been mistaken for that of a fluctuating ovarian tumour. It also presented a well-marked capsule at its cut edge, but so intimately connected with the contents that only a very small portion could be separated. The patient left the hospital well, two or three days after the operation.

Multiple Vesical Calculi, the Sequel of Prolapsus Uteri.

Dr. GALABIN showed a number of vesical calculi, consisting of twelve large stones and about fifty small ones. These, together with a good deal of fine sand, were removed from the bladder of a woman sixty-one years old. She had had prolapsus uteri for seventeen years, and for the last ten years the procident mass had never been returned into the vagina. For about eight years she had been crippled with rheumatoid arthritis, the thighs being nearly ankylosed in a position of extension, but had been able to get about the house. She always had bearing-down pain from the

prolapse, but no symptom referable to the bladder until six months before, although the calculi must have existed for a much longer period. She then began to have incontinence of urine during the night, and soon after suffered from forcing pain after micturition. For the last three months she had had complete incontinence of urine, and the urine was mixed with a large proportion of slime and blood. The vagina was found to be completely inverted, and the whole bladder and uterus external to the body, the uterus being in a position of retroflexion. The procident mass was greatly swollen and inflamed, feeling like a bag of pebbles, and it was impossible to return it. Dr. Galabin performed vaginal lithotomy, with the assistance of Mr. W. R. F. Lane (in whose charge the patient was), a longitudinal incision being made with scissors in the median line. Twelve large calculi, and about fifty small ones, were removed, besides a large quantity of fine sand. The largest measured one and a half, by one and a quarter, by one inch. The weight of the whole, not including the sand, was eight and three-quarter ounces. The calculi appeared to be of uric acid, the larger ones having a superficial film of phosphates. The wound was at once closed with silkworm gut sutures, the mass returned with difficulty, and a large elastic ring pessary introduced, although without much hope that the prolapse would be thereby retained. At the end of ten days perfect union had taken place, and the prolapse had been so effectually kept up, that the cut surface could scarcely be drawn within reach sufficiently to allow the sutures to be removed, the fixation of the thighs making it impossible to use any speculum. Partial incontinence of urine remained for a while, but the patient had recently written to say that she now suffered from no inconvenience, except from her rheumatism.

The mechanism was evident by which, in this case, calculi were prevented from escaping as usual, while small, from the female bladder, for this organ was virtually converted into a kind of bottle, with its orifice uppermost. Although the patient had been under medical care for her rheumatism, she had never before asked for advice as to the condition of her uterus.

Dr. ROPER mentioned a case in which he had removed calculi by dilating the urethra, and asked why Dr. Galabin had chosen lithotomy.

Dr. AVELING thought Dr. Galabin quite right in selecting

vaginal lithotomy instead of dilating the urethra. Such a mass of stones would have been difficult to deal with by any other plan. It was a simple and safe operation, and if the sutures which closed the wound were carried through the mucous lining of the bladder, hæmorrhage (the only difficulty Dr. Aveling had met with in doing this operation) might be prevented.

Dr. R. BARNES said that dilatation of the urethra or lithotritry was most suitable for small or moderate-sized calculi, lithotomy for a case like the present.

Mr. DORAN observed that he had, two years since, removed a calculus, from the bladder of a girl aged nine, by dilating the urethra. In two or three days the child could retain her urine, and never had suffered since, yet the surface of the calculus was very rough. For the removal of a single stone, whether the bladder be displaced or in its normal position, dilatation appeared to be preferable to vaginal lithotomy, unless the calculus was very large. But in a case like Dr. Galabin's, where numerous calculi existed, the repeated injuries inflicted on the urethra by the movements of the forceps, and the extraction of each stone, would entail greater risk than the removal of the calculi through a wound in the bladder.

Dr. AVELING added that he had seen two cases in which the urethra of young girls had been completely destroyed by dragging calculi through the dilated canal.

Dr. ROGERS said he believed Dr. Galabin took the best and wisest course in cutting through the bladder instead of dilating the urethra. Had the latter operation been performed, he thought that there would necessarily have been much delay, that great irritation and even serious inflammation would have followed. He had, for a like cause, incised and stitched up the bladder without mischief having resulted, and he had seen others do it with a like result. He had also dilated the urethra and crushed stones in the bladder. In one case a large stone was incrustated on a hair-pin; this was easily crushed and brought away, as well as the pin, without much mischief following, but in a case like Dr. Galabin's, he would certainly do as Dr. Galabin did.

Dr. GALABIN had chosen lithotomy on account of the number and size of the stones, and the great amount of inflammation present. His experience was that, if the urethra were dilated much beyond the size of the index finger, more or less incontinence of urine was apt to remain permanently. No disturbance had fol-

lowed the operation, but the patient was relieved immediately from her sufferings.

Missed Abortion.

Dr. ROPER exhibited a specimen of missed abortion. It occurred in the practice of Mr. Fendick. The ovum was expelled entire on March 9, 1880. The embryo was shrivelled, sodden, and compressed, and quite free from decomposition. The patient, when she aborted, had been married seventy-four days ; twenty-six days before marriage, one hundred days before aborting, she had been seized with phlebitis of one femoral vein, which caused well marked white leg. A large and extensively spread out blood clot of old date was expelled with the ovum. The ovum at the time of expulsion seemed to be one of more than seventy-four days of gestation, and was probably older than one hundred days. Might not the intra-uterine clot have been the cause of the death of the ovum and of the phlebitis at the same time ?

Double Monster.

Dr. GODSON showed for Dr. Murphy, of Sunderland, a double monster, consisting of two female children united by the front of thorax and upper part of abdomen. The first head was delivered by forceps ; body of first child extended by hooking fingers over breech, then feet and body of second, and finally second head. Both were born alive and breathed for a few minutes.

The PRESIDENT remarked that the mode in which delivery here took place was a common one in these cases.

*Removal of Fibrous Outgrowth from the Fundus Uteri—
Recovery.*

By Dr. GODSON.

The patient, aged thirty, was under the care of Mr. Alfred Cooper. She suffered from great difficulty in micturition and defecation, and such depression of spirits that life had become a burden. For the last five years the menstrual flow had become diminished in quantity and clotted, still lasting an entire week. A hard nodular tumour was found reaching almost as high as the umbilicus, movable separately from the uterus. The anterior wall of the uterus appeared also to be in a fibroid condition. The probe entered two and three-quarter inches. The patient being very anxious for an operation, the author sanctioned

it, having warned her that considerable risk to life would be incurred thereby, and that cure of the symptoms was not certain. Mr. Spencer Wells concurred in this opinion, and performed the operation on December 10th, under carbolic spray. The pedicle of the fibroid tumour, attached to the right posterior angle of the uterus, was fixed by a temporary clamp. On drawing up the clamp to transfix the pedicle, the strain was so great that the pedicle tore away from the uterus, which receded into the abdomen. So little hæmorrhage, however, occurred, that no means to arrest it were found necessary. The patient recovered without adverse symptoms. All her troubles and low spirits had disappeared since the operation.

Removal of Uterine Fibroids by Laparotomy.

By Mr. KNOWSLEY THORNTON.

After a brief introduction, in which he alluded to the controversy on ovariectomy in its early days, and advocated a calmer and more judicial consideration of the present operation, the author said that he not only regarded the removal of uterine fibroids by abdominal section as justifiable in certain cases; but believed the future of these operations would be in no way second to that of ovariectomy. The objections to operating by laparotomy for fibroids were: 1. The less fatality of fibroids when let alone, as compared with ovarian tumours. 2. The greater frequency of their relief or cure by medical, expectant, or milder surgical treatment. 3. The greater danger of the operations for their removal as compared with ovariectomy. After considering the true weight of each of these arguments, he claimed that the same rule should be applied to the removal of fibroids that is usual in other general surgical procedures, and pointed out how often dangerous operations were undertaken merely for the relief of deformity. Operations of convenience were now much more safe and justifiable, thanks to Professor Lister's method.

The following proposition was advanced for discussion: "It is justifiable to make an exploratory operation, with perfect anti-septic precautions, in any case of fibroid tumour of the uterus which has resisted medical treatment, and which is either endangering life or preventing the subject of it from fulfilling the ordinary duties of her sex and position." The great difficulty lay in the present uncertainty of differential diagnosis between the varieties of uterine fibroids.

Complete records of two cases were then given. The first, a complete hysterectomy with removal of both ovaries. The second, removal of sessile fibroids and one ovary, without opening the uterine cavity. Both patients recovered without fever, and without any untoward symptom.

The necessity for the greatest accuracy in the nomenclature of these operations was insisted on, and three classes of cases defined; each having its distinctive symptoms and signs, and each having a very different amount of operative risk and difficulty assigned to it. The author thought the term hysterotomy should be given up, as incorrect, and as having been already applied to a very different procedure. Hysterectomy, though not quite perfect as a descriptive term, seemed the best to be found, and had not been appropriated to any other procedure. This term should, however, be confined to the complete cases, in which the whole supra-vaginal part of the uterus was removed, with or without the ovaries.

Dr. BANTOCK referred to a case in which, more than two years ago, he had opened the peritoneal cavity, only to find that he had to deal, not with an ovarian tumour as diagnosed, but with a uterine fibroid, whose connections were so extensive that he was obliged to close the wound. The point of interest in the case was the fact that the tumour had since undergone cystic degeneration; for last autumn, the tumour having increased in size, her medical attendant was able to draw off seventeen pints of fluid by means of the aspirator. Dr. Bantock then gave a short history of two cases in which he had removed the tumours by abdominal section. The first was a small tumour about two pounds in weight. The pedicle formed by the uterine body was ligatured, and left in the peritoneal cavity. Septicæmia resulted from the escape of a small quantity of blood from the stump, and the establishment of a connection between the peritoneal cavity and the vagina through the uterine canal. This was brought about by the peculiar nature of the uterine tissues, so abounding in muscular and elastic elements, which caused them to yield before the force of the ligatures. Thus it happened that at the post-mortem examination a No. 6 catheter could easily be passed along the canal, although the mucous membrane presented distinct evidence that the constricting force had reached the deepest parts of the enclosed tissues. This was a most instructive fact, and would seem to warn us against leaving the pedicle

in the peritoneal cavity when the uterine cavity was opened. In the second case the tumour weighed twelve pounds, and afforded a good example of the way in which a hard fibroid had become cystic. There were very abundant adhesions to omentum, small intestine and mesentery, and many ligatures were used. The pedicle, which was about three inches in diameter and very vascular, springing from the fundus uteri, was first ligatured in four divisions; but owing to the thickness of the pedicle, the bleeding could not be thus controlled. It was then secured by stout silvered copper wire, applied by means of Cintrat's serre-nœud, and two needles were passed through the stump transversely, so as to keep it outside. In the fundus uteri there was a small fibroid, and from the back of the uterus depended, by long and slender pedicles, two very hard fibroids as large as a Barcelona nut. All these were left undisturbed. The patient made an excellent recovery. The treatment of the pedicle was the most important question from the operative point of view. Whether it should be subjected to torsion, as accidentally happened in Dr. Godson's case, after the method of Macleod, or be secured by ligature, or clamp, or wire, and whether it should be treated extra- or intra-peritoneally, would depend on circumstances, and the predilection of the operator. He was assured there was a great future before this operation, and he hoped to see the day when its success would rival that of ovariectomy.

Mr. DORAN believed that the most serious question with regard to the removal of the uterus or uterine growths was the relative safety of appliances for securing the portion left in the abdominal cavity. Both the ligature and the clamp involved great dangers. In the fatal case mentioned by Dr. Bantock, he had examined the stump of the uterus, and found it tightly secured by a stout silk ligature; but on laying open this stump a deep circular ulcer was found, exactly corresponding to the line of the ligature without, and its base was, all along, half on the distal, half on the proximal side of the silk. On the other hand, in a fatal case under Mr. Thornton's care, the pedicle of a large fibroid out-growth had been secured by the clamp. In examining the stump Mr. Doran found that though the clamp had been screwed as tightly as possible without cutting into the uterine tissue, a slough lay in the constricted portion, and extended from the raw surface of the stump into the walls of the uterus. Hence the ligature might defeat its own object, by establishing, instead of cutting off,

a channel for the conveyance of septic material from without to the raw surface of the stump ; and the clamp, when made secure enough to stop hæmorrhage, might so bruise the tissues it constricts, as to produce sloughing that might extend distally and proximally.

The PRESIDENT congratulated the Society on the interesting papers which they had heard read, and which referred to a subject of great and increasing importance, which had not yet been discussed by the Society. There could be no doubt that the operation was one which had a great future before it ; but with regard to the precise indications for which we had not yet sufficient materials at our disposal to justify any positive conclusion. His experience of the operation would certainly not induce him to agree to the statement in Dr. Godson's paper—that it was not more dangerous than ovariectomy. On the contrary, from what he had seen of it, he should say that not only was it a much more serious, but, as a rule, a much more difficult operation. There was this great difference between the two diseases : that while a patient with ovarian tumour rarely lived if left to herself, a person with fibroid rarely died. It was, therefore, only in very exceptional cases of fibroid tumour that an operation was indicated. Such was one of Mr. Thornton's cases, which he had had the advantage of seeing. Even here the operation was not absolutely necessary, so far as the life of the patient was concerned. Still, the lady, a person of great intelligence, had for many years been reduced to such a state of complete invalidism from constant suffering, that after having had the risk to be undergone fully and distinctly explained to her, she deliberately elected to submit to it, rather than live a life of misery and uselessness. Under such circumstances he did not feel justified in withholding his approval, and the result fully and happily justified the course pursued. Many such cases existed, and it was in such that the operation found its justification. Now that antiseptic precautions had so materially lessened the dangers of abdominal surgery, the operation would doubtless be greatly extended, and he trusted that the discussion it would receive would be of use in increasing our knowledge of it.

Dr. JOHN WILLIAMS said that the question of the conditions which rendered such operations necessary was of the first importance. The danger at present was rather that of operating too often than too seldom. Fibroids seldom killed directly by

causing hæmorrhage, although repeated losses of blood often made the patients perfect invalids. He had seen cases in which fibroids had led to diffuse suppuration in the broad ligaments, and where such a condition was present, removal of the tumour would probably prove fatal. Every such operation must at present be first exploratory. Mere fixation of the tumour was not a contra-indication.

Dr. MATTHEWS DUNCAN would not attempt to criticise individual cases, such as the remarkably interesting ones read this evening, for very much depended, in the question of their being justifiable, on the weight or meaning attached to pain or suffering, and this could not be at all justly appreciated by third parties. Such cases, however, and others, demonstrated that the extirpation of fibroids by abdominal section was a feasible operation, successful even in unfavourable circumstances, and one for which there was a place in legitimate surgery. Great reputations had been made in the course of establishing for ovariectomy its place in surgery, and such well won distinction could not be reaped again in that field; but a younger race of surgeons had before them a still more difficult task, the establishing of the operations now under discussion, and doing so would deserve the highest renown. The difficulties of the operations were more considerable than in ovariectomy, but upon these he would make no remark. Surgeons had, as plenty of cases testify, already succeeded in overcoming them. As to the special cases suited for operation, much wisdom was required to judge; and much knowledge of the natural history of fibroids had still to be acquired before the extent of the applicability of the operations was nearly settled. Although such extent would be always limited, as compared with that of ovariectomy, yet increased knowledge of the natural terminations of fibroids would, he believed, certainly extend the use of the operation beyond what many timid men at present imagined. For, besides the pains and chronic ill-health often caused by fibrous tumours, the perils of abortion and of labour, such tumours were liable to dangerous diseases and degenerations, liable to produce peritonitis, acute or chronic, liable even to induce cancer, especially of the peritoneum. The paramount danger of fibroids arose from the bleeding which accompanied them, and thus produced a fatal result more frequently, he believed, than was generally supposed. He had seen several deaths from the bleeding of fibrous tumours; some of them produced suddenly and

directly by the hæmorrhage, others suddenly or more slowly, as a consequence, not of the bleeding directly, but of the extreme anæmia it had produced. He had lately seen a fibroid fatal from peritonitis induced by a rough railway journey, and he had had a case where there had been no bleeding for many months, and where the death was almost suddenly caused by pulmonary œdema with hydropericardium and hydrothorax, occurring in connection with excessive anæmia.

Dr. JOHN WILLIAMS added that in one case in which he had performed this operation the patient died. The tumour was large and lobulated, and in it were cysts containing fluid. The bladder was adherent to the tumour, and was torn in removing it. The patient died from hæmorrhage into the cellular tissue owing to retraction of the ovarian artery from the pedicle. The tumour weighed twenty-eight pounds.

Dr. HEYWOOD SMITH said he wished first of all to criticize Mr. Thornton's use of the word "laparotomy" to designate abdominal section in the median line. Mr. Thornton was not alone in doing so, as Dr. Fancourt Barnes, in his book on "Midwifery," had spoken of the incision in Cæsarian section as "laparotomy." The word *λαπαρον* meant the portion between the ribs and the crest of the ilium—*i.e.*, the flank. In the operation of laparo-elytrotomy the word was correctly used, as the incision began in the flank, and it was therefore much to be regretted that any proposition had been made to use the word in an ambiguous sense. If a new word was needed to supersede "gastrotomy," perhaps "cœliotomy" would do, from *κοιλίχ*. Mr. Thornton was right in using "hysterectomy" in preference to "hysterotomy," as the former expressed the operation as clearly as did "iridectomy" in the speciality to which it belonged. He next wished to ask for more information about the treatment of the stump of the cervix in these cases, and as the greater success seemed to have been with the clamp, whether some means could not be devised, by stitching together the edges of the lining membrane of the cervical canal, or trying to get it to close by the actual cautery, and so lessen the chance of septic absorption. In a case he recently exhibited where he had performed hysterectomy for malignant disease, the stump was found to have undergone a remarkable change. It had become by the contractile tissue of the uterus pushed up, in spite of a tight ligature, into a conical projection. The other steps of the

operation, though formidable, are yet fairly agreed upon. What we want is more reliable information with regard to the treatment of the pedicle, in order to guard against the onset of peritonitis.

Dr. FANCOURT BARNES remarked, in reply to Dr. Heywood Smith, that the word *λαπαρη* signified the soft part of the body between the ribs and the hips. He therefore used the term laparotomy to signify an incision through any part of the abdominal wall between those points.

Dr. GRAILY HEWITT mentioned, as illustrative of the subject now under discussion, a case which had come under his notice some years ago, that of a lady suffering from considerable enlargement of the abdomen, due to ascites and the presence of a large tumour. The tumour proved to be a large fibroid of the uterus, connected with that organ by a broad but not thick pedicle. The tumour was removed, and the patient is still alive and well. In this case the tumour excited so much irritation in the peritoneal cavity that death would certainly have occurred speedily had the operation not been performed. He considered that the indication for operation in such a case as this was clear enough. The diagnosis of the case just mentioned was not made before the operation; the tumour was thought to be ovarian, but proved to be uterine.

Dr. CHAMPNEYS said that the legitimate proceeding of lifting impacted fibroids out of the pelvis was not without risks. This was illustrated by their great liability to tear (as happened in one of the cases just described to the Society), often leading to severe and persistent hæmorrhage. In such a case symptoms of internal hæmorrhage should indicate prompt exploration of the abdominal cavity.

Dr. AVELING believed in cases of subperitoneal fibroid tumours causing functional disturbance and suffering endangering life, their removal by gastrotomy was proper. He would ask Mr. Thornton whether he proposed the same treatment for the submucous variety of tumour?

Mr. THORNTON, in reply, deprecated the fastening of the pedicle up to the abdominal wall as a dangerous practice, abscess in the pedicle or in the abdominal parietes, or pyæmia, resulting from it. He agreed with Dr. Matthews Duncan as to the necessity for, and importance of, increased study of the natural history of fibroids, and thought the record of his experience as to methods

of fatal termination very valuable. He had lately seen an example of the peculiar degeneration referred to by Dr. Duncan. He would remind the President, as Dr. Godson had done, that the difficulty and danger of operation varied with the nature of the fibroid. Many ovariectomies were incomparably more difficult than the removal of a pediculate subperitoneal fibroid. In answer to Dr. John Williams, he did not think it was possible to lay down any more definite rules as to when operation was or was not justifiable or possible than those contained in his paper. All operations must be more or less exploratory. Having brought forward two successful cases to illustrate his paper, he would take the opportunity of stating what his entire practice in this operation had been, as he had no wish to publish only successful cases. There were on the table, beside the tumours removed in the cases he had related, the tumour from the fatal case referred to by Mr. Doran, and also a fibro-cyst of the uterus which he had lately successfully removed in the country. He had now operated for uterine tumours twelve times. In ten of the cases the operations were completed, and in two they were not. Four of the former died, and one of the latter. The complete cases might be thus classified :—Three complete hysterectomies, with removal of both ovaries, with two recoveries and one death (from septicæmia). Three removals of fibro-cystic tumours of uterus, all of which recovered. One removal of fibroid out-growth during pregnancy ("Obstetrical Transactions," vol. xxi.), the patient dying of intestinal obstruction on the fifth day. A case of hysterectomy with removal of one ovary, and death from hæmorrhage. Two removals of fibroid out-growths, and in each also one ovary. One recovered and one died (septicæmia). Two exploratory operations, one a large fibroid tumour, not interfered with, patient recovered, and thought herself much relieved by the operation. The other, a fibro-cyst of the uterus, the patient being in a most hopeless state when the exploratory incision was made, a large quantity of horribly fetid fluid was evacuated, and the incision closed—the patient died.

OBSTETRICAL SOCIETY OF EDINBURGH.

*Meeting, Wednesday, December 10th, 1879.*Dr. ANGUS MACDONALD, *President, in the Chair.*

Professor SIMPSON showed a placenta with a velamentous insertion of the cord. The placenta was entire, and not divided, as is sometimes the case with this malformation.

Dr. CROOM showed a fœtus with intra-uterine hydrocephalus. The patient had fallen in labour on Thursday morning, a midwife being in attendance in the evening. She was seen by a practitioner, who diagnosed the condition and applied forceps. He was unable to deliver her, and sent for Dr. Croom. When seen by him he was struck with her collapsed clammy state. The pulse was 130 and weak. Owing to her condition, he did not examine her abdominally, but perforated the head with a trocar and extracted with forceps. On introducing his hand he found a conjugate at the brim of 3", and the body of the uterus torn from the cervix anteriorly. The patient never rallied, and died in three hours. The case was evidently very similar to one related by the President on a previous occasion.

The PRESIDENT showed a specimen of uterine hydatid, or myxoma of the chorion, which, although small, represented at least a seven and a half months' pregnancy. He had been asked to see the patient in consultation. Hæmorrhage had been present for about two months, but unfortunately none of the discharges had been kept. In this way it was impossible to determine its nature by the characteristic appearance of white currants floating in a red jelly. There was no doubt of its being a seven and a half months' pregnancy, as indubitable signs pointed in that direction, but the size of the abdomen corresponded to about four months. The diagnosis arrived at by the medical attendant of the patient and himself was that it was a missed abortion, probably due to myxoma of chorion. Two or three days afterwards the mass now exhibited was expelled without much hæmorrhage, thus confirming the previous opinion. No fœtus could be detected.

On the Treatment of Abortion.

By ANGUS MACDONALD, M.D.

Lecturer on Midwifery and Diseases of Women, Medical School, Edinburgh, &c.

Dr. ANGUS MACDONALD then read his Paper on the Treatment of Abortion.

The treatment of an accident occurring so frequently as abortion, which happens in at least ten per cent. of all pregnancies, cannot fail to interest every practical obstetrician. As, moreover, the comfort or misery, the health, and even life, of women so frequently depend upon the skill with which an abortion is managed, it is of the utmost importance that clear views of this subject should be entertained by the profession.

Considerable experience as an examiner of candidates for medical licenses, as an hospital physician, and as a gynæcological consultant, has very strongly impressed me with the conviction that the treatment of abortion is not uncommonly very imperfectly apprehended by the student, and only loosely grasped even by many practitioners. It has therefore occurred to me that it would be of some advantage to provoke a discussion and criticism of the subject in our Society, with the view of eliciting what is the most approved practice among us. I am the more emboldened to do so because, although both in Germany and in America several recent Papers of great merit have been published upon this subject, in our own country little attention has been directed to the question for some time back. And, moreover, I hardly think the treatment of abortion is one of those subjects on which the rules of procedure are so uniform and clear among us that we can with advantage allow the matter to go to sleep. I have accordingly put together, as concisely as possible, what I consider to be the most appropriate treatment of this accident, and now lay my observations before the Society, in the hope that in the course of discussion some fresh light may be shed upon this most important obstetrical subject.

In considering the subject, I mean to restrict my observations to early miscarriages—that is, to interruptions to pregnancy about the end of the third month. But these embrace the greater proportion of abortions or miscarriages, and besides, are much more difficult to treat than those occurring later on, after the uterus has acquired considerable size and contractile power.

There is no denying that abortions are liable to involve the

subject of them in very serious trouble and danger. They are dangerous at the time of their occurrence by the direct loss of blood they occasion. They are further apt to lead to septicæmia through the decomposition of retained clots or of retained portions of the ovum. Even although both these accidents should be fortunately avoided, the patient is further rendered liable to the formation of placental polypi, or to granular conditions of the mucous membrane of the body of the uterus, with consequent menorrhagia. Not unfrequently, also, is subinvolution the result of an ill-cared-for miscarriage. In addition to the above sufficiently serious list of risks, there is further to be recorded the great tendency of ovaritis, of perimetritis, and of parametritis to follow abortion.

These being possible evil consequences—and I have not mentioned all that may supervene—it is our duty to inquire if, in our treatment of such cases, it is in our power to lessen or remove any of the risks that are apt to attend this accident.

The treatment of abortion divides itself into—

1. The treatment of threatened abortion.
2. The treatment of abortion after it is clearly impossible to prevent interruption to the pregnancy.
3. The after-management during the lying-in week.
4. The treatment of placental polypi and other causes of hæmorrhage traceable to abortion.

Let me take these up in a little detail.

I. The Treatment of Threatened Abortion.

In the management of this condition there is no difference of opinion. After the practitioner, on due inquiry respecting the symptoms, especially the character of the pains, the amount of hæmorrhage, and the condition of the cervix, is satisfied that the expectation to arrest the threatened accident is not hopeless, it is his duty, by rest, recumbency, cool regimen, and opiates, to endeavour to maintain quiet of the circulation, and arrest of the uterine contractions and of the hæmorrhage. It has lately been urged in such cases to administer ergot as a uterine hæmostatic; but, considering the powerful influence of that medicine as a stimulator of uterine contraction, it appears to me unreasonable to expect that the drug will not do more harm by inducing contraction of the uterus than any good effect it might have in inducing contraction in the walls of the uterine arteries, and thereby

lessening the tendency to bleeding. I consequently have never felt myself warranted in prescribing it with this view. In all such cases search should be made for hydatids, as myxoma of the chorion is a frequent cause of abortion, and in such cases we ought clearly not to attempt retention of the ovum.

II. But supposing that the bleeding and other symptoms abundantly satisfy the attendant that to attempt to conserve the pregnancy is a hopeless task, how is the case to be conducted? But here let me state, in passing, that in miscarriages, as in other conditions, the mere amount of hæmorrhage must not be too much trusted to. Very many cases of threatened abortion proceed to full time after what appears a loss of blood inconsistent with continued gestation. It is agreed on all hands that the loss of blood may be very considerable without abortion, so long as the source of it is near the lower pole of the ovum, where it obtains free exit. But, again, a trifling amount of bleeding may lead to disaster if it occurs high up in the uterus, and thus separates any considerable portion of the membranes from their attachment. It is always assumed, of course, that in such cases the foetus is alive and healthy, and its circulation is not interfered with by the drain of blood.

I have myself lately met with a case in which the bleeding was so severe as to lead the attendant to introduce a sponge-tent into the cervix for its arrest. The cavity of the cervix was therefore freely dilated throughout its whole extent, and yet the uterogestation was not interrupted, but on the arrest of the bleeding continued normally.

This curious case possesses another point of special interest. The patient suffered from most severe morning sickness. But after the dilatation of the cervix the sickness was not the least improved, continuing quite as severe as formerly till midtime of pregnancy, when it declined. Such a case appears to me to present a crucial experiment regarding the value of Copeman's proposed dilatation of the cervix for morning sickness of pregnancy, for if dilatation of the cervix could cure morning sickness, it ought to have done so here. But no improvement followed the dilatation.

In all cases, however, in which the regularity and intensity of the uterine contractions are so established as, along with the attendant hæmorrhage and pronounced change in the cervix uteri, to remove all hope of avoiding abortion, what are we to do?

It is in this condition of matters that there exists the greatest

difference in practice. Let us, therefore, endeavour to formulate a plan of procedure. First of all, I would say that if the bleeding is moderate and the contractions tolerably powerful, it is a mistake to consider that any specially active treatment is required, as the great majority of cases need nothing further than the free administration of ergot, the maintenance of rest, quiet, and recumbency, with cool, non-stimulating diet and careful regimen. Care ought to be taken to retain for the inspection of the doctor every bulky thing that is discharged, so that he may judge as to whether the entire ovum has been expelled or not. In such cases all that will be needed is possibly slight acceleration of the final stage of the abortion by gentle traction upon its presenting point after it is well into or through the os uteri, combined with pressure upon the fundus uteri by the hand on the abdomen. Still, even such easy cases require careful watching, because the hæmorrhage is apt to be serious, and the ovum, if slow to separate, is liable to become putrescent.

But what I have most to object to is a wholesale practice of what is called plugging the vagina, which is practised almost universally in such circumstances. Plugging the vagina may be so conducted as to arrest the most severe uterine hæmorrhage, but in that case the vagina must be carefully packed with the material used as a plug, every corner of it being tightly filled. But what I object to is plugging as it is ordinarily practised. I frequently see cases in which three or four pieces of lint, each about the size of a walnut, are inserted into the vagina, connected together with a piece of string. These are left to act as sponges to stimulate the hæmorrhage, and as foreign bodies to become foci round which putrescence of the blood and vaginal secretions may arise. The practitioner, flattering himself that he has put his patient in a condition of safety, seeing he has *plugged the vagina*, goes about his duty with a quiet conscience and a calm spirit. All the while, however, I maintain he is resting in a false security, and the action he has taken may increase the risks, but certainly cannot lessen those of his patient. The plug is a positive danger to her, in that it engenders in her attendant's mind a false sense of security, whilst it at the same time increases her risks of putrid absorption.

Other forms of plug are used, such as a greased handkerchief round a sponge, or a distended ball, or what is called a col-peurynter. But, so far as I am able to judge, these methods of plugging are all alike worthless in arresting hæmorrhage, if such

is present worthy of the name, and all are alike objectionable, inasmuch as they lead to the retention of putrescent materials in the genital passage, thus directly provoking septicæmia, whilst they tend to throw the practitioner off his guard. Doubtless, in many such cases no harm is done. The doctor goes his rounds, returns to his patient, removes the plug, and watches the case to the end. But in such cases I do not hesitate to affirm that the introduction of the plug was wholly unnecessary. The reason that no harm results is that the bleeding was not great, and equally good results to the arrest of hæmorrhage, without the introduction of any other risks, would have been obtained by withholding the hand. I am deeply convinced that, had there occurred in such cases hæmorrhage worthy of the name, and such as to warrant the use of a plug, such plugging would have been utterly futile to arrest it. The success of such treatment, I therefore maintain, is *post hoc*, and not *propter hoc*, whilst the risks involved in their use are not inconsiderable.

In stating the matter thus strongly, let it not be thought that I undervalue the use of plugging the vagina in cases of uterine hæmorrhage arising either from abortion or other cause. I have frequently plugged the vagina in abortion cases, and I can look back to at least two cases where plugging the vagina appeared the only means whereby the patient's life could be, and was, saved. But in these cases the bleeding was really serious, and the method of plugging was thorough. In such cases every corner and cranny of the vagina has to be packed with pledgets of cotton-wool or lint, about the size of a walnut each. It is better to steep them in solution of the bisulphate of iron, which is mildly astringent and decidedly antiseptic, or in a two per-cent. solution of carbolic acid; and the plug should not be allowed to remain more than from twelve to twenty-four hours. The plugging in the earlier part of the process is to be conducted with the aid of a speculum. If a Sims' speculum be at hand it is the most suitable form to employ. In the latter part this instrument may be dispensed with. The whole is finally to be kept in position by a T-bandage. I have occasionally, but not frequently, been compelled to perform this method of plugging in abortion cases. I have frequently seen one or other of the other methods mentioned, but I have never been satisfied that any beneficial results were obtained from them, and consequently I have never felt myself warranted to employ them.

My opinion, therefore, is that in the ordinary run of cases, in which the hæmorrhage is not specially profuse, we ought to trust to ergot by the mouth, or to ergotine subcutaneously, and that we shall most probably find all will go on right, except that we shall have to hurry the conclusion of the case with slight manipulation, and that wholesale imperfect plugging of the vagina is to be strongly deprecated. If, however, hæmorrhage is severe, then active measures must be taken to empty the uterus *tuto, cito, et jucunde*. For, as in a case of hæmorrhage from placenta prævia, we never feel comfortable in an abortion case till the uterus is thoroughly emptied. I believe, also, that much more harm is likely to result from undue caution than from undue interference in such cases. At least, experience has led me to believe that the majority of our professional brethren are more apt to err in this particular through defect than through excess of activity. The result is that their patients are liable to be landed in troubles that are much more serious than any dangers, real or imaginary, connected with thorough evacuation of the uterus. To put it plainly, I consider a patient is put to greater danger from a portion of the membranes being left in the uterus, to become organised there and a source of persistent menorrhagia, than she is likely to suffer from the manipulation necessary to secure complete removal of every part of the ovum in a miscarriage.

If the cavity of the cervix is sufficiently dilated so as to permit its being traversed by the index finger, then by chloroforming the patient and introducing the one hand into the vagina, while with the other you depress well the uterus, it is usually possible to explore in detail every portion of the inner surface of a uterus at the third month, to make out whether the ovum is entirely or partially separated from it, and to break up any adhesions that may exist between the ovum and the uterus. Then, after the ovum is completely isolated from the uterine walls, a very moderate amount of pressure upon the fundus is sufficient to expel enough of the ovum through the open cervix to allow of its lower pole being gently grasped between the index and middle finger of the hand in the vagina, and in that way removed.

At one time I used forceps for the removal of abortions, and many such are made. In the *Chicago Medical Journal* for June, 1879, a Paper by Dr. H. A. Martin, of Boston, is devoted

to demonstrate the value of a particular pattern of such an instrument. But forceps are liable to catch the uterine wall, and my conviction is that the best abortion forceps is the human fingers ; and they have at least one advantage over every other instrument, that you can never forget them or leave them behind you.

In the meantime, it is advisable to have the patient well under the influence of ergot, whether the drug is administered by mouth, subcutaneously, or per rectum. If the abortion has been long on the way, it is advisable to wash out the interior of the empty uterus with a two per-cent. solution of carbolic acid, and then make the patient comfortable and let her rest. Suppose, however, as frequently happens, the cervix is not sufficiently dilated to allow the index finger to pass it, and the bleeding is serious. These are the class of cases that one usually meets with as examples of imperfect and useless plugging of the vagina. If the practitioner is able to stay with his patient, no objection can be made to plugging the cervix by means of a pledget of lint, except that it is only partially effective as a hæmostatic, is somewhat difficult to insert, and liable to be soon expelled. But the method of all others, the safest, speediest, and most agreeable, is to introduce a sponge-tent into the cervix, and leave it there from two to four hours. During an abortion a tent is never difficult to introduce, as there is almost always a considerable amount of dilatation at the inner os, so that a moderately large tent may be passed with ease. Besides this, the resistance to dilatation in the neck of the uterus is not specially great, so that the tent rapidly expands, and will be found fully dilated in three or four hours at most, and thus septic changes are not likely to be set up by the tent. The gradual distension of the tent acts as an efficient plug against hæmorrhage. At the same time, the stimulus of the dilating tent reflexly operates upon the uterus, promoting contraction of it. In this way the abortion is hurried to its close, the ovum being gradually isolated from the uterus, and the hæmorrhage is doubly guarded against—*i.e.*, no blood can pass the cervix, and the bleeding points in the uterine surface are at the same time diminished in size by the uterine contractions.

The practitioner may with tolerable certainty calculate upon two hours' safety from danger after the introduction of a sponge-tent into the cervix uteri in a case of abortion, if the cervix is tolerably tight at the time of insertion. Meanwhile, he is at

liberty to attend to his other patients, feeling assured that, so far as the abortion is concerned, his patient is safe from the immediate danger of hæmorrhage, and that time is being gained the while. If on his return he finds the tent loose and the cervix well dilated, there only remains to empty the uterus in the manner above described, and wash out its interior with solution of carbolic acid, if thought necessary.

It is sometimes recommended to depress the uterus so as to bring the outer os to a level with the vulva in abortion cases, by means of a volsella inserted into the cervix, so as to bring the cavity of the uterus within reach of the examining finger, as we are wont to do in the removal of fibroid polypi, and in many operations upon the cervix. This plan has been ably advocated by Professor A. R. Simpson. There is no doubt but this is an efficient method, but it appears to me that in abortion it is seldom necessary, as it is almost always easy to empty the uterus with the hand or finger in the vagina, and the help of the outside hand to depress the uterus. And while we all know that it is possible to depress the uterus so as to bring the outer os into the vulva without danger, I confess to an aversion to subject the uterine pelvic attachments to unnecessary strain. It may be only superstition, but with me the feeling is sufficiently strong to keep me from unduly depressing the uterus, except it is unavoidable. It is further to be remembered that when adhesions exist between the pelvis and the upper part of the neck and lower part of the body of the uterus, such depression of the cervix is not only dangerous but impossible.

In certain cases in which the great bulk of the ovum has been expelled, and from examination of the discharge you are not satisfied that the whole has come away, and yet you find the cervix is not sufficiently dilated to allow a finger to pass it, the use of a copper curette, such as this which I show you, will be sufficient for all the requirements of the case. In the first place, by ransacking the interior of the uterus with it you will be able to determine whether any portions of the membranes are still left. In the second place, you will be able to remove them without danger of injuring the uterus.

I must be allowed to say here, however, that Dr. Paul Mundé's curette appears to me too slender to be useful for this purpose, and that before you can satisfactorily employ a curette in the removal of remaining portions of an abortion the cervix must be at the time in a more than ordinary dilated condition, or be first artificially dilated

so as to allow of the introduction of a larger and more powerful curette.

After the use of the curette the interior of the uterus ought to be washed out by means of a double catheter with a two per-cent. solution of carbolic acid. In this way the necessity for artificial dilatation of the cervix may be frequently avoided. It ought also to be remembered that in the course of an abortion, even though the hæmorrhage is ever so slight, the onset of fever and any evidence of absorption of putrid matters into the woman's blood from the ovum is to be looked upon as warranting us in emptying the uterus at almost any cost. This view of the case is strongly urged by Dr. J. Veit, *Zeitschrift für Geburtshilfe*, B. iv. S. 163. You will find an abstract of this Paper in my monthly retrospect in the *Edinburgh Medical Journal* for September, 1879. Most of us can look back to cases of putrid abortion in which, after completely emptying the uterus, threatening symptoms from septic absorption have, to our great relief, disappeared, so that we will feel inclined to agree with Dr. Veit in this matter.

III. *After-Treatment of Abortion.*

So soon as the uterus is perfectly emptied, and, if thought necessary, disinfected by being washed out with a suitable solution of carbolic acid, the patient should be kept in bed for a week at least. The harm that is done by getting up too soon after abortion is incalculable. It is a common proverb that "it is better to have a broken leg than a bad sprain." There is no doubt that it is frequently better for a woman to undergo a severe labour than an abortion. The reasons are similar in both cases.

The necessary inconveniences and legitimate risks associated with a bad sprain are certainly not so serious as those that follow a fracture of the leg; but the fracture compels the patient to take the quiet essential to a cure, whilst the sprain does not do so. In like manner, a patient is compelled to submit to the necessary treatment and rest after a bad labour, whilst she does not regard an abortion as making similar demands upon her. The result is, that sub-involution, chronic metritis, with catarrh of the cervix or body or both, perimetritis, parametritis, and oöphoritis, displacements, &c., are extremely apt to follow in the wake of abortion. As there is the best reason to believe that these are not the necessary results of carefully managed abortion, but follow very generally at least from neglected abortions, it is of the utmost import-

ance to insist upon a due amount of rest until the involution of the uterus and vagina has become completed. I know of no exact observation upon the subject ; but there appears every reason to believe that the small uterus at three months does not require so long time for its involution as the large organ at nine. Accordingly, while it is inadvisable to allow a patient to get out of bed before a fortnight after delivery at term, it appears safe enough to permit a patient to rise at the end of a week in the case of an early abortion. But active duties ought to be suspended for another week, so that a full fortnight at least ought to be allowed for recovery from an abortion.

As the risks from septicæmia in connection with abortion are considerable, and the more so if the ovum has, from whatever reason, become putrid before its expulsion, or even if the abortion has been long in the way, the greatest care ought always to be employed, by the use of antiseptic vaginal and, if need be, uterine washes, to avoid absorption of putrescent materials. The maintenance of efficient contraction in the uterus is also a considerable safeguard against absorption of such materials through the venous channels, at least, and this should be aimed at by the diligent use of ergot. The results of ergot upon a small uterus, with its muscular wall only imperfectly developed, are, of course, less to be trusted to than in dealing with a uterus at term, when the muscular wall is powerful, so that we ought to depend most on cleanliness and antiseptics.

But it not unfrequently happens that hæmorrhage of the most severe kind follows after we have completely evacuated the uterus, the feebly acting organ refusing to contract upon the uterine vessels to seal them up. It is in such cases, *par excellence*, that I consider plugging is of the greatest value. But then the plugging must, to be efficient, be *thorough*.

IV. *Treatment of After-Effects in Ill-Cured Abortion.*

Proceeding now to the consideration of the evil after-effects of ill-treated abortion, I may state that the leading symptom for which patients seek aid at hospital in such cases is exhausting menorrhagia. This is frequently severe, and by the time they have made up their minds to apply at the hospital, or have been sent thither, the patients are usually reduced to a degree of extreme anæmia. The history of such cases, as given by the patient, is various.

It not unfrequently happens that the patients have never applied for medical relief, but, having suddenly aborted with a moderate amount of hæmorrhage, have never taken the slightest precautions, have never laid up, or even lessened their attention to their ordinary duties. On the return of the next menstrual period they have found the amount of flow specially great, and at every succeeding menstrual period up to the time at which they apply, the discharge has tended more and more to be profuse, till ultimately it has become threatening to life. In other cases a medical man has been in attendance who has proceeded upon the principle of letting Nature have its course—a very good general principle, but one that admits of numerous exceptions, or else our art would have no apology for its existence. The discharges were carefully watched: possibly, however, a vaginal examination, for some reason or another, has not been made throughout the entire management of the case, and the patient has been told, seeing that no lump such as was anticipated has come away, that no doubt the abortion has been gradually removed in minute portions, and that by-and-by all will ultimately come right. It does not do so, however, but the patient is the subject of constantly repeated hæmorrhagic seizures; and if an examination is made even a month or six weeks after such an abortion occurred, the cervix will frequently be found patulous, and probably a placental polypus will be detected projecting through the inner os uteri.

Let it not be imagined that I am at present indulging in a saunter through the region of romance, for if it were prudent, right, or necessary, which it is not, I could name actual cases in support of what I assert. It was the fact of repeatedly meeting such cases that chiefly impelled me to bring this subject before the Society. I think the members of our department of medicine need to have it strongly urged upon them that abortions all over require to be dealt with by a firmer hand than they have hitherto believed, and that the danger of interference in them is not great. On examining all those cases we find the uterus soft and flabby, as well as somewhat enlarged.

In the case of some of them, the placenta, or portions of the decidua left adherent in the interior of the uterus, has undergone a low kind of organization, has formed what in this country we call placental polypi, and what in Germany they style *Placentarreste*. When these are present it is not uncommon to find considerable dilatation of the cervix persistent, so that its cavity, months after

the abortion, is traversable to the examining finger. But in other cases it would appear that mere relaxation of the muscular wall of the uterus, and the presence of a congested, probably granular condition of the mucous membrane, is all of a pathological nature that can be found.

In the first class of cases the uterus may be emptied without any antecedent dilatation process. The polypi are to be broken off by the finger, or scraped off with a blunt copper curette; the uterus then washed out with solution of carbolic acid; and possibly, with rest and ergot, all will go well. The solution of the per-nitrate of iron is doubly useful in such cases as an internal medicine; it meets the requirements of the system for iron, while it acts at the same time as a powerful hæmostatic.

In those cases in which the cavity of the cervix is tightly closed, I have long been of opinion that the most efficient means of treatment is the use of a tangle or sponge tent. Before the use of the curette became so general we were in the habit of dilating such cases, and although finding nothing in the uterus to remove, we almost always observed that the hæmorrhage ceased. The possible explanation was that the irritation of the tent stimulated the flabby uterus, made it firmer, and less inclined to bleed.

It very often results that after such dilatation, when you scrape the whole of the interior of the uterus with a copper curette, you find that nothing will come away. On other occasions you find that soft, thickened fungous patches of hypertrophied mucous membrane peel off freely from a particular portion or portions of the area of the body of the uterus. There is no doubt but the removal of them is necessary to the restoration of healthy action of the mucous membrane of the body of the uterus. I have again and again drawn the best results from such procedure, and never saw any serious accident follow the treatment. But it requires to be carried out with the greatest caution.

I have accordingly come to believe that in the treatment of severe and exhausting hæmorrhage, continuing for months after an abortion, the proper treatment is to dilate the cervix with a tangle tent, and explore the cavity of the uterus, unless the cervix is so open as to allow exploration of the cavity of the body without dilatation. If, then, any considerable portion of lowly organized remains of the abortion are present, they may be removed with the finger-nail. If, however, there is only present an irregular soft condition of the mucous membrane, then the surface

ought to be scraped with a copper curette. I doubt, however, whether it is safe, or even frequently practicable, to apply the curette until the cervix uteri is previously dilated, though this is recommended by Boeter, Mundé, and other authorities, all of whose opinions are deserving of the greatest respect and consideration.

Dr. CROOM thanked Dr. Macdonald for his interesting communication on a practical subject. The Paper, however, had been so full that there was little room for discussion. He had found most difficulty in differentiating between cases of threatened and real abortion, in deciding between when to opiatize and when to plug. The occurrence of gushes of blood was a sure sign, and of course where the os was open and a presenting mass felt there could be no doubt. He agreed with Dr. Macdonald in his remarks on plugging, but thought it should be done with the aid of a Sims's speculum. Styptics were not needed; all that was requisite was to open up the vagina with the speculum, and then to pass plugs of cotton wadding thoroughly into every nook and cranny, finishing up with the application of a T-bandage. It was impossible to insist too strongly on the complete evacuation of the uterus after abortion. He did not see the advantage of curetting the uterus over that of hauling it down with a volsella and using the finger-nail, as Professor Simpson had recommended in his communication on the complete evacuation of the uterus after abortion. In other respects he agreed with Dr. Macdonald.

Professor SIMPSON thought Dr. Macdonald's Paper was full and exhaustive. But the subject was one that had already been well worked out; and a recent report in the *Centralblatt für Gynäkologie* had rightly enough referred to it as a theme now "rather threshed out." In one or two points of detail, where the author objected to the procedure advocated by him (Dr. Simpson) in his communication on the same subject to the Society a few years ago, he was convinced that further experience would yet show Dr. Macdonald that he was mistaken. The objections, for example, to the use of the volsella were purely hypothetical. He (Dr. Simpson) had not yet met with any case where bad consequences had followed the dragging down of the uterus, and he could promise Dr. Macdonald that he would yet meet with instances where he would be glad to employ it, and find it a most satisfactory means of gaining access to the uterine cavity. Again, he agreed with Dr. Croom that they should not use curettes. In

cases where fragments were still present some time after abortion he agreed with Thomas and Mundé that Thomas's curette was best. The addition of a knob $2\frac{1}{2}$ " from the point made it more useful. When a stronger curette was needed, it was best to employ Recamier's. While he endorsed the general well-established principles of Dr. Macdonald's Paper, he would take exception to any routine injection of the uterus with carbolic acid as a piece of superstitious antisepticism. He would advocate it only where putrescence, its clearest indication, was present. His belief as to the management of abortion was in active treatment with the hands and sponge-tents carefully disinfected. Beyond that, he left the uterus alone, and only used intra-uterine injections when hæmorrhage or putrescence called for their employment.

Dr. JAMES CARMICHAEL did not think Dr. Macdonald's curette, which was a rigid instrument, was, strictly speaking, comparable to Thomas's, which was in reality a flexible one, and could only be used successfully when the vagina was made into a canal by the use of the speculum, and the uterus drawn down by a hook or volsella. The special idea of Thomas's curette was to do away with rigidity. He could not say anything as to particular treatment. He had been interested in Dr. Croom's description of the way to plug the vagina. Most of his experience in plugging the vagina in practice had been to the effect that it could be efficiently plugged with simple materials—viz., a sponge, silk handkerchief, &c. He had also plugged the cervix with lint or strips of bandage pushed in with a uterine sound.

Dr. ANDREW had listened with pleasure to Dr. Macdonald's Paper. He was not fond of intra-uterine injection, and objected to it being made a routine practice. He had often seen Dr. Macdonald plug the vagina in the way described by Dr. Croom.

Dr. WILSON thought that one point not noticed was, whether in some cases, where the abortion took place after the patient had been laid up for a week, it would not have been better to have completed the case at first. Plugging, when employed, should be effectual. He generally used a weak solution of iron along with it. He had the same objections as Professor Simpson and Dr. Andrew to routine intra-uterine injections of carbolic acid. In nineteen out of twenty cases it was unnecessary. With regard to the use of the curette, he thought the finger was preferable.

Dr. T. R. RONALDSON had never yet plugged the vagina, as he always used the sponge-tent. He thought that a firmly-plugged

vagina might prevent the uterus expelling its contents. When the sponge-tent was used to plug the cervix, the uterus could expel both it and the abortion. Then the sponge-tent was easier of application, as well as safer. He had often found difficulty in deciding whether the uterus was completely empty or not. When in doubt, he had always introduced his finger into the uterine cavity. In future, he would employ the volsella to facilitate this.

Dr. BRUCE felt indebted to the President for his Paper. Although many of the points were quite familiar to those connected with hospitals, it was useful to practitioners to have them brought up now and then. He had seen many cases of abortion, and found most of them easy, but occasionally they were very troublesome. When there was much discharge of blood, he generally used the sponge-tent. He remembered one case of continuous flooding where he used a sponge-tent and plugged the vagina also. During the night everything was expelled, sponge-tent, plug, and an immense number of hydatids. He agreed with Professor Simpson that the use of the volsella and finger was better than the curette.

Mr. C. H. THATCHER mentioned a case at second month where a practitioner introduced two sponge-tents consecutively. The patient went on, however, to full time.

The PRESIDENT thanked the Fellows for the reception accorded to his Paper. There had, however, been in the discussion considerable misconception in regard to his remarks on plugging the vagina and curetting the uterus. He was against plugging the vagina unless the uterus was empty and the hæmorrhage so severe as to be threatening to life, and he thoroughly agreed with Dr. Ronaldson in saying that it was not so effective as the sponge-tent in ordinary circumstances. He had strongly objected to imperfect plugging of the vagina, however, which, notwithstanding the statements of some Fellows to the contrary, he knew to be far too frequently resorted to. He had never found any danger arise from curetting or washing out the uterus. He did not recommend the latter as a piece of routine treatment, nor did he advocate promiscuous curetting, as would appear from the turn the debate had somehow taken. He thought it an admirable proceeding in cases seen late, where part of the membranes had been left behind and the cervix was too tightly contracted to admit the finger into the uterus. But he was as strongly con-

vinced as any of the Fellows could be, that when the finger could be used it was far better than any curette.

The Causation of some Primitive Face Cases.

By J. HALLIDAY CROOM, M.B., F.R.C.S.E.

Physician Royal Maternity Hospital; Lecturer on Midwifery and Diseases of Women,
School of Medicine, Edinburgh.

Dr. CROOM then read a Paper on the Causation of some Primary Face Cases.

It is seldom in private practice that the physician has an opportunity of observing the pregnant woman for some weeks before delivery, and noting the changes which take place during the period immediately preceding parturition. Even in the Maternity Hospital such observations are not very easily carried out, because the majority of women present themselves at our lying-in institution either actually in labour or when the process is just imminent. Yet changes in the presentation of the fœtus are by no means uncommon—changes, for example, from the transverse to the cranial. In the position, however, especially from one cranial position to another, changes are not only not uncommon, but frequent. Now that external palpation has become more thorough, and is practised as routine by every obstetrician, along with the aid afforded by auscultation, these changes can be made out with great accuracy. In the case which I am desirous of bringing under observation, the changes from one presentation to another—viz., from cranial to face, and *vice versâ*—were frequent. It is, however, specially with the view of illustrating one probable causation of a certain class of face cases that I offer the following remarks:—

Face cases may be either primitive or secondary. Although this classification is not adopted by many authors, yet the arrangement is a convenient one, for it differentiates two sets of face cases occurring under two very different sets of circumstances. It is necessary, therefore, clearly to define each variety.

The ordinary or secondary set of face cases which are described fully in every treatise on midwifery, and with which every obstetrician is familiar, may be defined as those where the face is found presenting during labour, and is brought about as a result of it. The causation of such face cases has been fully inquired into. Daventer, Baudelocque, Duncan, though differing considerably in

detail, refer the cause to some fault in the powers of parturition—viz., uterine obliquity. Hecker finds the cause in the body passing—viz., in a lengthening of the posterior arm of the cranial lever in dolicho-cephalic children ; while, according to others, the bony passages are at fault, and the occiput hitching on the brim of a narrow pelvis is the cause. With this set of face cases the present communication is in no way concerned.

The other set of face cases are those which are termed primitive or primary—viz., those cases in which the face presents during pregnancy, before the commencement of labour ; when, therefore, the head is above the brim, free from contact with the bony pelvis and the membranes unruptured. Such cases, however remarkable they may seem, and however difficult of explanation, are yet distinctly recognised by many, indeed by most authors. Madame Lachapelle records two cases where post-mortem examinations of women near full term showed the fœtus presenting by the face. The authors of the “*Dictionnaire de Médecine*” collected eighty-five cases, forty-nine of which were clearly made out and announced as such before rupture of the membranes. Further, of these eighty-five cases there were only three in which the uterus was in a state of well-marked obliquity, and only one where the amniotic fluid was in excess. From this evidence, as well as from other causes, which, however, he does not mention, Cazeau comes to the conclusion that the majority are primitive, and due to causes altogether beyond our knowledge. Tyler Smith makes no special reference to this class of face cases, but refers the causation of all face cases to causes intrinsic or extrinsic to the fœtus. Hodge objects to the division of face cases into primitive and secondary as an unnecessary classification. He admits that full presentations of the face are often primitive, and attributes them to spontaneous movements of the child, the face getting so fixed by uterine contraction. Sir James Simpson accounts for face cases and malpresentation generally—1st, by death of fœtus ; 2nd, premature labour ; 3rd, the application of unusual excito-motor stimuli to the fœtus and uterus ; 4th, causes mechanically displacing fœtus during pregnancy or commencement of labour—*e.g.*, *a*, excess of liquor amnii ; *b*, sudden rupture of membranes. Schroeder says, “In primiparæ in whom during pregnancy already distinct uterine contractions have taken place, they may be produced during that period—primary face cases.” It would seem that

Schroeder overlooks the fact that in primiparæ at term the head is lower than in multiparæ, and that the causes at work in producing secondary cases will come into play here as well. Playfair accounts for primitive cases as the result of the well-known labour pains which continue marked before labour sets in. Spiegelberg refers incidentally to primitive, and records the fact that he has seen a primitive face case caused by bulging of the thorax in hydrothorax. Matthews Duncan, in a Paper read before this Society in April, 1870, on the Production of Presentations of the Face, confines his attention entirely to the secondary or ordinary face cases. Referring to primary cases, he says, "As has been already hinted at, all cases of face presentation do not demand this kind of explanation. Instances are recorded, for example, where the extreme extension of the head existing in an ordinary face case during labour has been observed before labour commenced." To this extraordinary kind of face presentation, and others allied to it, Dr. Duncan makes no reference whatever, confining himself entirely to the mechanism of the production of face presentation under ordinary circumstances.

The following is a good example of a primary face case, and at the same time affords an explanation of the cause of its occurrence :—

Margaret Walker, aged thirty, a multiparous woman, pregnant of her third child, was admitted to the Maternity Hospital on the 26th of September, 1879.

On Examination Externally.—There is considerable right uterine obliquity. The globe of the head can be felt above the brim. With the fingers and thumb grasping the abdominal wall just above pubes, the head can be felt high up above bony ring, freely movable. Back of child is directed towards the right. Small foetal parts can be felt towards left side, near fundus. Greatest intensity of foetal heart on right side.

Internal Examination.—Cervix shortened; os externum gaping; os internum easily admits forefinger; membranes unruptured; anterior fontanelle distinctly felt. Position, right occipito-posterior well extended.

27th Sept.—The full face felt, nose, orbits, chin; left mento-anterior.

28th Sept.—Full face felt as before; no uterine contractions are distinguishable. At the patient's urgent request she was allowed

to go home for a day or two. She returned on 12th October. External examination as on 16th Sept. Internal examination—presentation cranial position, a well-extended right occipito-posterior. The anterior fontanelle is easily felt, but the apex of occipital bone can only be recognised with difficulty to the right, posteriorly and high up.

13th Oct.—The presentation is a full face, high up, freely movable, not in contact with bony pelvis. Slight hardening of the uterus under the hand externally can occasionally be felt, but this does not in any way affect position.

14th Oct.—During visit, position right occipito-posterior.

Vesper.—Full face presented, without any uterine contraction being felt by patient or recognised by hand.

15th and 16th Oct.—Face as before.

16th Oct. 10 P.M.—Still a face.

17th Oct. 2 A.M.—Strong uterine contraction set in. On examination the face was found presenting; after a short interval the position was altered to a right occipito-posterior.

At 3 A.M.—The posterior fontanelle came within easy range of the examining finger. The head threatened to remain persistent right occipito-posterior, but when well down on the floor of the pelvis the forward rotation of the head took place. There was a very moderate quantity of liquor amnii.

Duration of labour—1st stage, 6 hours; 2nd stage, 1 hour 57 minutes; 3rd stage, 13 minutes.

Now, this was without doubt a primitive face case, and the question comes to be, How is a presentation such as this of the full face at the brim during pregnancy to be accounted for? I confess that I can hardly conceive of any presentation more difficult to explain. The natural attitude of the child, it is important to remark, is essentially one of flexion—every limb, every finger, the trunk, in fact, every movable member, is flexed. In a primitive face case, such as the one we are now considering, we have the normal flexion replaced by extension to an extreme degree. Further, we have to consider the fact that the foetus was alive, moving freely in a fluid medium, uninfluenced either by labour or contact with the pelvis.

The uterine contractions which go on through the later weeks of pregnancy, and which Schroeder, Hodge, Playfair, and others allege are the cause of this class of face, do not account for this

particular case. For, as I have shown in reading the case, the effect of the first real uterine contraction was to convert the already existing face into a right occipito-posterior. Further, I showed, when making an examination some days before labour, and when the uterus could be felt hardening under the hand, the position remained unaltered. If the patient had been, as Schroeder suggests, a primipara, in whom the lower uterine segment is deep in the pelvis, and the head more or less affected by the hard pelvis, in all probability the uterine contractions preceding actual labour would have influenced the head; but this patient was a multipara.

The right uterine obliquity, by causing the back and occiput to gravitate to the right and posteriorly, had some influence in causing the right occipito-posterior position, but it is difficult to see how any ordinary amount of obliquity would cause a full face to present at the brim irrespective of labour, and while the head remained free of the pelvis. I do not here call in question the effect of obliquity in producing a face case after labour has actually set in, but I fail to see how it is applicable in the present case. It is needless to discuss the effects of the liquor amnii, because neither hydramnios nor premature rupture of the membranes were factors in the case, as neither condition existed. For the same reason, such causes as premature labour, death of foetus, and the like, are inapplicable; and, indeed, Sir James Simpson and Dr. Fleetwood Churchill do not specially particularize them as applicable to primitive face cases, though they no doubt include such cases. Undoubtedly, when such conditions are present the production of the presentation in question is more readily understood.

The explanation of *this* case, at least, is to be found in the foetus itself. Both Sir James Simpson and Dr. Hodge refer in general terms to the movements of the foetus, Simpson speaking of the application of unusual excito-motory stimuli, and Hodge of the spontaneous movements of the foetus. In this case the foetus was a well-developed female. There was no marked caput succedaneum. The measurements of the head were sufficiently near the average to require no particular notice. There was no enlargement of the thyroid gland, spina bifida, nor any sore nor mark of any kind on the child. The striking point about the child was the extreme extension of the head. The muscles of the back of the neck were

strongly contracted, the occiput drawn backwards, and the chin well extended from the chest. Indeed, the face, when the child was held in the ordinary position, looked almost directly upwards. On inverting the child, the head maintained the same degree of extension, the face looking directly downwards. During sleep and periods of entire quiescence, the extension, though less pronounced, was still well marked. Throughout the patient's stay in hospital—a period of ten days—the child continued to carry its head in the same extended position. On the eleventh and twelfth days post partum the extension was somewhat less decided, but a month after labour, when the child was last seen, the position of the head was one of marked extension.

The PRESIDENT remarked on the interest of the Paper, and the wide field of controversy it opened up. He hoped it would meet with due attention.

Professor SIMPSON thought, with the President, that the subject introduced by Dr. Croom was an admirable one for discussion. Dr. Croom had done well, however, in limiting it. He had not met with a case of intra-uterine face presentation, and felt interested in Dr. Croom's one, as it had been so long and carefully observed. He had listened to the Paper with care, and the only criticism he would make would be as to the right obliquity of the uterus producing a right occipito-posterior case. This was the ordinary obliquity in left occipito-anterior presentations. Dr. Croom's explanation of the cause of the face presentation in this instance did not influence the usual theories as to their etiology. He had done well to record this extremely interesting labour.

The PRESIDENT had been extremely interested in the thorough and indubitable observation of the persistency of the presentation made by Dr. Croom. There were doubts in the professional mind as to whether primary face cases ever existed, and he had doubted it himself. This case showed a curious abnormality—viz., a great development of the extensor muscles; and if Dr. Croom's view of the causation was correct, the condition amounted to a sort of monstrosity, and therefore did not touch the general assumption that it was impossible for a well-formed child in a usually-shaped uterus to maintain for any length of time the condition of extension involved in a primary face position. It was further curious that the muscles of the neck were not able to prevent flexion of the head at the delivery.

Dr. H. M. CHURCH had recently attended a case of face presentation occurring before the membranes ruptured. When the head entered the pelvis, rotation of the chin forwards did not take place, and labour did not progress. The head not being so low in the pelvis as to render version impossible, this was performed, but the child was still-born.

Dr. CROOM thanked the Society for the reception accorded to his Paper.

Gynæcic Summary.

On the Diagnosis of Large Ovarian Tumours, by B. S. Schultze, of Jena.—The author has before described, under a similar title, a proceeding useful for diagnosis, which consists in this—The patient being thoroughly anæsthetized, the index and middle finger of one hand are introduced per rectum up to the posterior surface of the uterus, and the thumb of the same hand is brought per vaginam into contact with the anterior surface of the uterus. The other hand, placed upon the abdominal wall, is then pressed down below the tumour, upon the fundus uteri, and then the two hands seek for the pedicle between the uterus and the tumour. The search is aided by an assistant, who, standing near the patient's head, presses the tumour from side to side, upwards and downwards, alternately. In this way it is possible to make out what kind of a pedicle the tumour possesses, and whether it is closely connected with the uterus, or free from it. In his former communications he stated that (among other conditions), extensive and close adhesions to the abdominal wall would make it very difficult to put in practice this method of diagnosis. He now narrates two cases in which there was very extensive adhesions of the tumour to the abdominal wall, without there being any hindrance to the making of a perfectly accurate diagnosis by this method. He thinks the experience of these two cases greatly adds to the value of his method, and therefore he publishes them. The first case was operated on three months after delivery. She had had an attack of acute peritonitis during pregnancy, and another from the third to the sixth week after delivery. The omentum was found in front of the tumour, adherent over its

whole surface to the abdominal wall, and reaching nearly to the pubes ; it had to be cut through ; the tumour was firmly adherent besides, to the posterior abdominal wall to the right, and to the descending colon. The pedicle corresponded in all respects to the opinion formed of it (by the method described) before the operation. The patient recovered. The second patient had a tumour of the right ovary as big as an adult head, and the left ovary enlarged to admit twice its normal size. The tumour was extensively adherent. Both the size of the pedicle and the state of the left ovary were accurately diagnosed by this method before the operation. The pedicle was twisted a complete turn to the left. He does not state whether this was diagnosed. He remarks, that every laparotomy performed without a complete diagnosis, is to some extent an exploratory incision, and therefore everything which helps to make an operator certain, before he begins an operation, that he will be able to finish it, is of value. (*Centralblatt für Gynäkologie*, No. 1, 1880).

BOOKS, PAMPHLETS, &c. RECEIVED.

“Contributions to Obstetrics and Gynecology.” By Professor Alex. R. Simpson. Edinburgh, A. & C. Black. 1880.

“Etude sur les principales causes lethifères chez les enfants, au dessous de cinq ans, et plus spécialement chez ceux de 0—1 an a Athènes.” Par le Dr. A. Zinnis, Athens. 1880.

Communications and letters received from Mr. R. W. Parker, London ; Dr. Leopold, Leipzig ; Dr. Pickles, Leeds ; Dr. Potter, London ; Mr. Lowther, Hull ; Dr. Wilson, Wallsend ; and Dr. James Braithwaite, Leeds.

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THE
OBSTETRICAL JOURNAL
OF
GREAT BRITAIN AND IRELAND.

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No. LXXXVIII.—JUNE 15, 1880.  
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Original Communications.

A NOTE ON THE TREATMENT OF SUB-INVOLUTION
OF THE UTERUS.

By JAMES BRAITHWAITE, M.D. Lond.

Lecturer on Diseases of Women and Children, Leeds School of Medicine ; and
Surgeon to the Hospital for Women and Children.

THE writer having long felt the want of a perfectly safe and at the same time efficient means of treating uncomplicated sub-involution of the uterus, gladly tried for the first time about two years ago a plan shown him by Dr. Wynn Williams, at the Samaritan Hospital. This treatment is in common use by Dr. Williams amongst the out-patients of that hospital, and in the hands of the writer has been found to deserve all the confidence felt in it by its original author, with whose permission this note, which was at first only intended for a local medical society, is now published by the request of the Editor of this Journal.

It may be premised that this treatment is less suitable in cases complicated by endometritis, which should be treated previously for that disease.

The treatment consists in the application to the interior of the uterine cavity of a solution composed of equal parts of iodine, iodide of potassium, and spirits of wine. The first two ingredients dissolve readily in the third.

The patient being in the dorsal position, a Fergusson's speculum inserted, and all mucus wiped away, it is a good plan to pass a sound through the cervical canal, as the iodine applica-

tion is more readily passed afterwards. The sound used for this purpose should be curved only in its terminal half inch, or a trifle more, and this curve should be of about forty-five degrees angle in order to be easily used through a speculum. A small whalebone bougie, having its slightly bulbous extremity removed, or any long and finely tapering piece of whalebone, is to be wrapped round with cotton wool in its terminal four inches, or to a greater length than that of the enlarged uterine cavity. About two inches of this is saturated with the iodine solution, and is rapidly passed up to the fundus and there allowed to remain for a few moments. To facilitate the rapid insertion of the whalebone it should be slightly curved towards its extremity, and sufficiently fine to allow of its bending very readily. This is withdrawn in about a minute, the cotton of course coming away upon the whalebone, and being then stripped from it. The effect of the application of this powerful solution of iodine is to cause immediate forcible contraction of the uterine muscular fibre, as may be inferred from the difficulty of passing the cotton a second time soon after its withdrawal. This contraction, however, only occurs when the contractility of the muscular fibre is not lowered by inflammation. As, however, a second application should not be necessary, the contraction passes unnoticed. This solution should be applied twice between the periods, and continued according to the results. The lessening of the size of the uterus is generally marked and rapid, so that on introducing a sound at the end of a week after the first application, a uterus previously measuring three-and-a-half-inches may be expected to have lost half-an-inch of its internal length. Seldom more than three or four applications have been made, and cases chosen which were uncomplicated with much tenderness of the uterus, and unattended with the dirty brownish discharge of endometritis. It is in the experience of the writer a mistake to mix up such cases with sub-involution, and treat them with one remedy, as advised by a late writer upon the use of "iodized phenol." Treat the endometritis first either with ordinary tincture of iodine as recommended by Dr. Tilt, and as was the habit of the late Dr. Tyler Smith, or with carbolic acid after Dr. Playfair's plan, and then if the uterus does not lessen in size as much as desired, use this strong solution of iodine. If this is reversed, the strong iodine will be found to aggravate the inflammation, and the carbolic acid inefficient in curing the sub-involution. The only plan of treatment which

seems equally efficient with the one described, is that used by Dr. Atthill, of Dublin, the introduction into the uterus of ten grains of solid nitrate of silver. This treatment appears rather heroic, and at this side of the Irish Channel would probably set up unpleasant inflammatory action.

In conclusion, this short article only expresses the experience of its writer, who claims no merit whatever, and who takes this opportunity of thanking the original author of the treatment for a valuable hint in practice, which has helped him over a number of cases which he would otherwise have found it difficult to treat rapidly and successfully, and without fear of doing harm by setting up inflammation, or obliterating the uterine cavity by producing adhesion of its surfaces.

SHORT PAPERS ON SOME COMMON DISEASES IN YOUNG CHILDREN.

By ROBERT WILLIAM PARKER.

Assistant-Surgeon East London Hospital for Children.

II. GLANDULAR ENLARGEMENTS IN THE NECK.

THIS is one of the commonest forms of disease in children, and at the same time one of the least satisfactory to treat. Unfortunately the neck is largely supplied with lymphatic glands, and as this part of the body is much exposed to external influences, it is not surprising that we should often meet with disease in them. Moreover, as the neck is open to view, scars of old disease, or chronic swelling of the glands are particularly liable to be observed ; hence it is desirable to detect disease early, and, if possible, eradicate it before any permanent disfigurement has resulted.

Primary disease of the lymphatic glands is very rare ; it forms but a very small percentage of the total cases which come under observation. Nevertheless it is very well that it should be early recognised when it does occur, and as this has to be done chiefly by the method of exclusion, it will be best first of all to consider the various causes which lead to secondary enlargement. Then, after having excluded these cases, the remainder will probably represent those of primary disease. And if, in such cases, together with the spontaneous lymphatic enlargement in the neck,

there should occur swellings in other gland regions, enlargement of the spleen, febrile attacks, great anæmia and prostration, and increase of the colourless blood corpuscles, the diagnosis would be almost complete.

Secondary enlargements and affections of these glands. It has just been said that the neck is largely supplied with lymphatic glands ; I may add that they are placed comparatively superficial, and that in some constitutions they seem exceedingly prone to take on a low form of inflammation, and to enlarge in response to very slight causes. This predisposition is expressed in the word *strumous*, and if used in the course of this Paper, the word will be applied in this sense. The glands may, however, enlarge when there is no such special tendency, in consequence of long continued or active irritation of parts, with which the glands, by means of the lymphatic vessels, are in connection.

The glands are divided into a superficial and a deep set ; it is with the former that we have to deal chiefly. They are found pretty constantly in definite regions—viz., the occipital region, behind the cranial attachment of the sterno-mastoid muscle ; behind the ear, either in front of or over the anterior border of the sterno-mastoid ; in front of the ear, over the parotid gland ; and below the jaw, in the submaxillary region, *where they are the largest and most numerous*. Lower down, the glands seem to follow the course of the external jugular vein, beneath the platysma, being most abundant just above the clavicle behind the margin of the sterno-mastoid muscle. All these lymphatics however intercommunicate, not only among themselves, but with the deeper set, and with those coming from the chest and the axilla. In seeking for a possible source of irritation it is well to bear this fact in mind, for otherwise we may at first fail to find it ; and we must also remember that inflammation once set up, may spread elsewhere by mere continuity of tissue.

The varieties of glandular enlargement, as has already been suggested, may conveniently be divided into two chief classes :—

- a. Primary disease : lymphadenoma, or lymphoma.
- b. Secondary disease : adenitis, which may be either acute or chronic.

These two latter conditions may run one into the other, or an abscess may quickly form, discharge and heal up, leaving few, if any traces behind. Such a termination is by far the most favour-

able one, and it were to be wished that the majority of glandular abscesses belonged to this class.

An *acute* abscess of this kind is either due to some active irritation of the part in which the lymphatic radicles commence ; or it may appear to originate spontaneously—that is, the exact cause cannot be ascertained. I have seen many such cases in young babies, coming on rather suddenly and attaining a considerable size. They often cause great distress, and, by pressure, may implicate the larynx. A favourite position is just below and behind the angle of the lower jaw ; in other cases they occur over the anterior triangle. The skin quickly reddens and they discharge themselves. I believe it saves both time and suffering to puncture them with a small tenotomy knife directly fluctuation is apparent, and before the skin is involved, for there is then less scar and less danger of the pus burrowing to neighbouring parts, or of adjacent glands becoming affected. After a free evacuation of the pus, I think an application of evaporating lotion, or evaporating lead lotion, is much preferable to the poultice, which is so frequently used. It would be more correct, in some cases, to call these abscesses *peri-glandular* ; for after evacuating them, I have occasionally seen the lymphatic gland in an open cavity, as though it had been dissected out.

As regards the more *chronic form of glandular inflammation*, it may either terminate directly in (1) ulceration, or in (2) caseation, with subsequent softening and ulceration, or in (3) hypertrophy. This group of cases constitutes a disease for which the collective name of *scrofula* has long been employed, the word being in fact derived from *scrofa*, a *pig*. Ancient writers explain its use in this sense because pigs are supposed to suffer from the disease, or because glands in considerable numbers are found in their necks. In attempting to explain the condition we are obliged to fall back on the stereotyped phrase, that scrofula is a constitutional peculiarity ; hence the expression lymphatic temperament or dyscrasia. Nevertheless there can be no doubt that some children are much more liable to the disease than others, and that it is most obstinate in its course, even when the patients are placed under favourable circumstances for their recovery.

I have divided the group into three classes, but it is not always easy to draw the line between one and another. In some cases the glands inflame ; but the inflammation is of a low type and ends in ulceration rather than in suppuration. In others, the

glands gradually swell ; then, after a while, the inflammatory product caseates ; later, this caseation softens and breaks down. The skin next becomes involved, and after perforation has taken place, the hyperplasia is partially thrown off by suppuration ; the remainder, however, takes on a form of slow, but persistent ulceration, which leads to destruction of adjacent glands and skin. These heal only after many months, leaving unsightly scars on the surface, and beneath it, perhaps, indurated and partially calcareous glands, as an indelible index of the processes which have taken place. Every surgeon will be acquainted with such cases, for they are most troublesome and intractable. I shall again revert to them, when speaking of the treatment.

The third variety—hypertrophy of the glands—is another, though somewhat less frequent termination of this inflammatory process. In these cases it would seem as though the new growth tended to organize rather than to break down. But the distinction between this and the last mentioned form is more apparent than real. For if these glands could be examined, it would often be found that they are undergoing a very slow caseation, and that they differ from the foregoing in the rate of change rather than in any well marked pathological feature. I recently removed some glands from the neck, which were said to have been stationary for two years ; and on cutting into them I found little circumscribed patches of caseation, which, in the course of time, would doubtless have spread through the entire gland.

Causation.—In speaking of these swellings and abscesses as “secondary” affections of the glands, a primary disease of some part or other is of course implied. I will now briefly mention some of the diseases which most commonly predispose to them ; for I hold it of the greatest importance to remove the cause, even before attempting to treat the effects.

The Occipital Glands.—The most common cause is eczema on the hinder part of the scalp. In hospital practice, this eczema not infrequently is due to pediculi and the scratching to which they give rise ; it is well known that pediculi infest the hinder part of the scalp by preference, for they are more out of sight and therefore less likely to be molested.

As an uncommon cause, I may mention that a case recently came under my observation where the occipital glands on one side became enlarged, without any apparent cause, and continued so for some weeks ; then, suddenly, the child's neck became

“stiff,” and caries of the higher cervical vertebræ developed itself.

The glands *behind the ear* correspond with the pinna and the lateral and hinder part of the scalp, and inflame or enlarge in response to irritations from these parts.

The Parotid Glands correspond with the lateral and fore part of the scalp, and with the adjoining part of the face and eyelids. The most common disease is eczema of the scalp or forehead: chronic ringworm will occasionally cause them to inflame. Tinea tarsi not seldom acts as a predisposing cause, and I have seen a few cases in which strumous corneitis was the primary lesion. An unhealthy condition of the pituitary membrane of the nose will sometimes affect the superficial parotid glands, but whether directly or by extension from the deeper set I can hardly say.

The superficial glands *in the neck proper* inflame from a variety of causes. Among others may be mentioned otorrhœa, especially when the discharge is chronic, for in addition to the source whence it comes, its continued presence causes a kind of eczema of and around the external auditory meatus, which gradually affects the nearest lymphatics, most frequently I think those along the external jugular vein. If not due to the direct irritation of the adjacent skin, these glands may enlarge by a spread of the inflammatory process from neighbouring glands, either those already referred to, or others in the axilla, with which they freely communicate, and which, for obvious reasons, are frequently affected. As an unusual condition I remember a case where the irritation seemed to have proceeded from a so-called “milk abscess,” in the breast of a very young infant.

Finally, must be mentioned intracranial disease, or disease at the base of the skull, outside the cranium. A case was under my care of malignant disease, probably sarcoma, affecting the basilar process of the sphenoid; the glands of the neck commenced to swell on the same side as the disease; then, as the latter gradually invaded the middle line, the glands on the opposite side also became involved. These cases are quite outside the range of treatment, and may be dismissed with the mere mention.

Caries of the nasal bones—syphilitic or otherwise—will give rise to glandular enlargement; but they frequently fail to attract much attention, owing to the more obvious symptoms with which they are associated.

By far the most common—as also the most intractable and un-

sightly—are ulceration and enlargements of *the submaxillary glands*. Considering their connection, this is not remarkable, for the lymphatics of the pharynx, tonsils, mouth, tongue, lips, all communicate with them. In young children these parts are very liable to irritations, and it is just this form of low inflammation, long continued and often repeated, which most frequently leads to chronic enlargements.

Thus chronic pharyngitis is a very common disease in so-called scrofulous children. It is in fact a chronic catarrhal condition of the muciparous glands, which are so numerous in this part; and this, also, is one of the commonest antecedents of hypertrophy of the tonsils, which, again, in their turn, keep up the glandular irritation. Sometimes the inflammation begins in the tonsils primarily, and causes them to enlarge. In other cases stomatitis is the commencement; in other cases, again, decaying teeth or sore gums are the primary predisposing cause.

I have said sufficient to show the desirability, in all cases, of searching for the original source of the inflammation, for if it be still existent it must be removed before we can expect any great benefit to follow our treatment. On the other hand we must not forget that these secondary affections of glands not infrequently come on some time after the primary disease (of which they are the sequels) has disappeared. In the latter case they would come under the so-called “residual” irritations which Sir James Paget has so well described. It may be months before the effects begin to show themselves, but in all cases it is well to take cognisance of the original disease, as that may influence treatment considerably, besides being an important factor in the differential diagnosis of primary disease of the lymphatics.

As regards the acuter forms, their cause is generally sufficiently obvious, and their treatment must go hand in hand with it.

Syphilitic eruptions about the face and mouth, as also injuries, must not be forgotten among the common predisposing causes. Nor must I omit to mention the exanthemata, acting in some cases apparently quite apart from the local manifestations with which they—especially measles and scarlet fever—are not seldom accompanied. Typhoid fever comes within the same category.

Treatment.—As a general rule, it may be said that an effect will cease as soon as the cause is removed. Therefore our first care must be to remove any cause which seems to keep up or

extend the irritation ; if it be eczema, or pediculi, or otorrhœa, or pharyngitis, or ozæna, or irritation in the nose, or a general catarrh, our efforts must be directed to the cure of these diseases ; and, having succeeded, in eight cases out of ten probably the glands will slowly disappear without any local treatment. Remembering always, that the scrofulous habit is a predisposing cause, we must, of course, let our treatment include general as well as local remedies, which latter would probably fail without them.

Of all drugs, cod-liver oil is the most generally useful ; and it is now-a-days made in such agreeable forms that few children can seriously object to take it. Leslie's almonized oil, or Allen and Hanbury's "perfected oil," will be found agreeable modes of administering it. The ordinary oil floated on iced coffee or milk can be swallowed without leaving scarcely any taste behind.

Next in importance comes iron, and its preparations ; their value may be increased by combining them with glycerine in 30 or 60 minim doses. The new form of dialysed iron (Squire's) is an excellent preparation, and interferes with the digestive processes less than some of the other preparations. Iodide of potassium is useful in many cases. Its action, however, must be watched, for it tends in some children to produce iodism, which aggravates, rather than cures, glandular enlargements. As regards iodine itself, the above remark equally applies. But where iodine does not disagree, it is a valuable drug, not only for internal administration, but also for external application. If objected to by the mouth, in the ordinary form, it may be given as an inhalation, by mixing a little of the tincture with boiling water and inhaling the steam. Locally it may be applied in watery solutions, either in the form of a gargle, or of a spray, or as a lotion. It should always be applied locally to the primary lesion (whatever form be adopted) whenever this is possible, and not to the enlarged or inflamed gland. This is of importance, but it is seldom done ; the gland is painted with the "inevitable iodine" until the surrounding skin is actually excoriated—a condition which itself is sufficient to inflame the glands, and which is almost certain to aggravate them should they be already inflamed.

Iodine, to be of service, should, if possible, be applied to that part of the skin or surface in which the lymphatic radicles connected with the diseased gland themselves originate. Thus, when the scalp has been the seat of a chronic inflammation which has passed off, leaving the occipital or cervical glands enlarged, let a

moderate amount of weak iodine solution, or paint be applied to it ; in this way the iodine is absorbed by the lymphatic radicles, and is carried directly into the glands, just as was the original source of the inflammation.

In children with a specific family history iodide of potassium is especially indicated and useful, and if there is any good suspicion of congenital syphilis, mercurial inunctions will occasionally work marvels.

Change of air—sea air, if possible—is useful, and ought to be recommended and tried in all chronic cases.

As regards *operative interference*. If caseation or suppuration is suspected, it is well to puncture the glands and let out the pus ; and this should be done early, before the subjacent skin has become involved. It must be remembered that the glands remain for a long time discrete, and that therefore each softening gland must have an exit opening for itself. The skin once inflamed becomes involved in the same ulcerative process as the gland itself, which may, and often does, persist for years, and leaves ugly scars behind, and hence we must incise before this takes place.

For the more chronic form of glandular disease with hypertrophic enlargement, *excision* has been proposed and carried out. I have operated on many such cases with complete success, and without meeting with any great difficulties. The indications for operative extirpation may be summed up thus :—

1. A very chronic condition of twelve months' to two years' duration, during which the glands have slowly grown, without any obvious continued cause for this, the original cause having long ceased to act.
2. The glands being conspicuous and superficial.
3. The disease being local.
4. The general health good.
5. The ordinary remedies having failed.

I have no hesitation in recommending extirpation in these cases, and under the foregoing conditions ; for the operation is not dangerous, and the linear scar, which alone remains afterwards, is far less conspicuous than the irregular scars which invariably attest spontaneous ulceration. Besides this, I think it is decidedly advantageous for the patient—especially if any phthisical family history be obtained—to remove all this caseous material ; for one can never say how soon it may begin to grow, or when a tuberculosis may not start, by an infection-process, from these admittedly dangerous centres.

Want of space will prevent my entering further upon the subject of primary disease of the lymphatic system. It is, fortunately, a rare disease, and, as already stated, it has to be diagnosed by a process of exclusion, rather than by any symptoms which, in its earlier stages, are special to this disease itself.

ON THE INFLUENCE OF MATERNAL SHOCK IN THE PRODUCTION OF FŒTAL MONSTROSITIES.*

By THOMAS WILSON, M.R.C.S. Eng., L.R.C.P. Edin.

Wallsend-on-Tyne.

MOST of us who are engaged in the routine of general practice, and especially in the department of midwifery, have had our attention repeatedly drawn to the occurrence of cases of abnormal development, for which the mother nearly always offers us an explanation. There are few of us, indeed, who have not, ere this, made acquaintance with such marks on children as *nævi*, the so-called "port wine stains," or "strawberry marks," and who have not received from the lips of the mother a theory of their causation.

As in the physical world every state of matter is conditioned by antecedent changes, or, in other words, is the effect of certain causes, so, in the world of life, there can be no such thing as a "freak of Nature," no such thing as a spontaneous divergence from any line of development without a concurrence of antecedent conditions in which its cause may be said to lie.

It is out of a recognition of this fact that there has sprung up the theory of "maternal impressions," by which mothers and many others seek to explain the occurrence of abnormalities in their offspring by the operation of certain physical agencies. It was enough to the mother who had carried her child into the months of autumn, and who was then safely delivered of a baby with a large *nævus* on its face, to remember the fact of her visit to the market, and the effect which a large basket of strawberries produced on her imagination on that occasion. With many other similar remarks we are all more or less familiar, and how have we regarded them? simply as crudities of thought, simply as the ex-

* Read before a conjoint meeting of the Border Counties and North of England branches of the British Medical Association.

pression of human nature to find a cause for everything ; simply as the wish, on the part of the maternal mind, to correlate, in some way or other, the occurrence of certain peculiarities, in the skin of her child for instance, with certain objects in the external world presenting to her mind similarities of appearance. We all know how disinclined we have been to accept such statements, which would make the relationship that of cause and effect, knowing the impossibility for the imagination of the mother, by brooding over certain circumstances, to develop such changes in the child. Creation by fancy, so to speak, cannot occur—and hence we have come to consider certain conditions, which in the mother's mind stand related as cause and effect, as simple coincidences, unexplained, it is true, by any law with which we are familiar. We have preferred taking this view of the matter, on the testimony of our best anatomists, that “no nervous communication is known to exist between the mother and her foetus in utero.” Whatever effect external objects may have had on the imagination of a mother, it is evident that no amount of thought or reflection on the part of the maternal mind can develop abnormalities in the foetus in her womb ; for to assert the affirmative is simply to make the mind of the mother a creative faculty.

This is the position I have maintained, and yet the occurrence of certain cases in my practice have caused me to reconsider the question, and to arrive at this conclusion—that whether or no there be nervous communication between the mother and the child she is carrying in her womb, there is sufficient evidence pointing very strongly in the direction of the products of conception being affected by circumstances which produce shock to the mother ; and without being too dogmatic on this point, it would appear that the earlier in the period of utero-gestation the greater is the liability to the product being affected. How it comes about that shock to the mother should thus interfere with the development of her child, I cannot tell. I offer no theory, in the face of anatomical obstacles, but simply bring before you a few facts to show you that while no nervous communication is known to exist between mother and child, in utero, the effect of shock upon the mother is not confined to herself, but also acts upon the babe she is carrying. With this object in view I shall briefly detail the facts of five cases.

CASE I.—Mrs. O., aged twenty-five years, on giving birth to her second child, it was noticed that the child had spina bifida

and club feet. The cause assigned by the mother was, that when in the fifth month of pregnancy, she saw a man fall down in the street in an epileptic fit. The man in question was club-footed.

CASE II.—Mrs. T., aged twenty-three years, primipara ; her child was born with a red mark on its back and also a mark on the centre of its forehead. Explanation given by the mother : when in her fourth month a girl came behind her unawares and gave her a slap on the lumbar region ; a month later, while reaching for some crockery in a closet, something fell down from above on her forehead.

CASE III.—Mrs. R., aged thirty-four years, told me that in her sixth pregnancy, when about half gone, she was standing looking out of her doorway, and she saw a horse and cart run over a child's forehead ; her own child's head was deficient from the eyes upwards.

CASE IV.—Mrs. M., aged sixteen years ; her child was born with two distinct vesicles on the left hand, one over the metacarpal bone and the other on the phalanx of the left index finger. Mother stated that a few days before the child was born she was ironing some clothes, when something startled her and she burnt her hand ; the vesicles on the hand of the mother exactly corresponded with those on the hand of the child.

CASE V.—Mrs. W., aged twenty-four years ; her second child was born on the 28th of December, 1879, after a short labour of two-and-a-half hours' duration. It moaned from the time of its birth, and only lived two days. During this time it was unable to take the breast, and continued to moan until it died. There was, therefore, nothing unusual about the birth. As her first child only lived a fortnight, and this her second had died so soon after its birth from some unexplained cause, I suggested a post-mortem, which was acquiesced in by the parents, and, with the assistance of Dr. Oliver, of Newcastle, we made a post-mortem, with the following results. Autopsy : Body is that of a well-developed child. The face is pale, the fingers and finger nails are black, the fingers are not clenched. Rigor mortis well developed. Head : on reflecting the scalp it is noticed that the upper and posterior portions of the parietal and parieto-occipital regions are found to be of a very dark colour. The coloration is that which is noticed when blood has been effused into tissues, as in ecchymosis. The calvarium, on being removed, carried with it the dura mater, which adhered to the fontanelles. Under the

arachnoid and over the left occipito-parietal lobes of the brain there is a good deal of blood effused. There are numerous small hæmorrhages, varying in size from a pin's head to a pea ; a similar condition exists under the membranes on the right side. The membranes, however, are easily removed, leaving the brain uninjured. The vessels are distended, on some there are dilatations. The membranes of the cerebellum are also hyperæmic. The brain and cerebellum healthy. The puncta hæmorrhagica are not in any way increased. No effusion in ventricles, a little at the base of the brain. There was rupture of the lateral sinus. Chest : both lungs are engorged, especially in the lower lobes. They feel firm to the touch, and cut like a piece of flesh. The section is studded here and there with small reddish black points, as if of pulmonary apoplexy. The condition of the lung is that met with in the early stage of pneumonia. Heart : the left ventricle contains clotted blood ; the right is also filled with clot, which can be traced into the pulmonary artery ; the abdominal organs are healthy. There was no disease of blood-vessels. This was considered a case of cerebral pneumonia.

Remarks.—After some conversation with the mother the following explanation was given by her :—In the act of removing something out of a large chest, some three months before her confinement, the lid came down suddenly on the crown of her head, and as it was somewhat heavy it caused her to faint, and to complain of pain in that region. Until a few days ago she complained of a dizziness in her head. Now, as nothing occurred during, or after, parturition to produce such a general ecchymosis under the scalp, and, so far as I am aware, there is no ante-partum condition which can cause it, I leave it to you to consider how much reliance is to be placed on the fact of injury to the mother.

We are in this condition with the five cases I have read to you. On the one hand we have certain abnormalities in some children, and, on the other, we have certain statements by their mothers. How do these two circumstances stand related to each other ? Is it, as the mother insists, one of cause and effect ? Is it possible that the mere observation of a person in a fit so impresses a woman, that the child she is carrying exhibits distinct signs of that at which she shuddered ? Is the anencephalous monster, or the child with the spina bifida, but the material reflection of the maternal impression ? (not after the manner of the mother brooding over the fact, and making herself miserable.) Is the

visual and tactile sensation, which so impressed and sent a shudder through her at the time, capable of being followed by abnormal development in her child through the medium of the vaso-motor system ?

CASE OF EXTRAORDINARY ABNORMAL
DEVIATIONS IN THE DEVELOPMENT OF A FŒTUS
(SEVEN MONTHS)
AS DEMONSTRATED IN AN AUTOPSICAL
EXAMINATION.

By GEORGE LOWTHER, F.R.C.S.
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MONSTROSITIES, considered in relation to their origin and mode of development, is an abstract subject, very difficult of solution. Investigations hitherto made have, etiologically, given no very definite results. Incidents innumerable, physical and mental, apparently bearing on abnormal deviations in the development of the embryo are on record, and many others within the sphere of my own experience, relative to causation in these cases, might also be recorded. As the purport of this Paper, however, is merely to contribute a few facts, founded on an autopsy, I shall reserve these records as simply assumed facts that need corroboration.

The following Case is that of a lady (J. H.—, aged forty), of nervous temperament, very emotional, and subject to fits of syncope and unconsciousness from puberty. She had finished her seventh month of utero-gestation. A primipara. Sent for in the evening of the 6th of March last. Liquor amnii had escaped half an hour before my arrival. She had had abdominal pains referable to the uterus, with slight sanguineous flow, during the week, which were mitigated and restrained by anodynes. I found the os dilated to the disc of a florin, and the head presenting. In three hours the os had dilated and receded. Position: Left occipito-anterior. During dilatation there had been copious hæmorrhage. Whilst dilatation was proceeding I was inclined to doubt whether my diagnosis relative to the presentation was correct, as in taking the sweep of the head my finger fell opposite the right ilio-pubic symphysis into a deep cavity, the lower margin being hard, smooth, and rounded, and the upper part undefinable.

Although my finger had been fairly tutored in obstetric manipulations, it failed to satisfy my mind as to the nature of this peculiarity. That there was some strange abnormal state in the part presented I had no doubt whatever.

Hæmorrhage continuing, a systemic effect threatening, and labour not progressing, I brought down the feet; still expulsion was retarded. I again introduced my hand, separated the placenta from its attachment to the fundus, and withdrew child and after-birth together.

The child was dead and had been, apparently, two or three days. Cuticle of feet, hands, and other parts of upper and lower extremities had separated. The peculiarities referred to, and the cause of retention in expulsion, are explained by italics in the following:—

Necropsy.—A longitudinal section was made through the columna vertebralis, the halves drawn apart and the interior disclosed. At the centre of a transverse line drawn between apices of shoulders the column curved forward and downward. Scoliosis might be compared with (short of its lower curve) the letter Delta. In the centre of the column, in an elliptical cavity, thirty lines in length, the cord was imbedded. Within a space of twelve lines four nerve filaments were given off, and, on each side, distinctly traced. The cervical vertebræ were absent. Occupying the site was *a deep cavity*, non-integumentary, extending upward into the floor of the cranium. Into this cavity the curve of the column partly projected. The occipital bone was absent, if we except an osseous arch, six lines in width, in contact with the ossa parietalia. Through this and the frontal bone the saw was passed and the interior of the cranium exposed. As might be anticipated there was no cerebellum, and only an amorphous cerebrum, a mere covering of brain substance enclosing simply an indefinable cavity. The only nerves discernible were the optic. An incision was then made through the thorax and abdomen and the interior examined. There were no diaphragm, mediastinum, nor pericardium proper. The pleura and peritonæum, by their union, formed a sort of membrana innominata that lined a continuous cavity, and investing alike heart, liver, spleen, pancreas, and intestines, passed through the abdomen near the umbilicus, along and attached to the funis (*which was only three inches four lines in length*) to its entrance into the placenta, and then loosely reflected, formed a pouch-like appendage. Inwardly, the funis was traced down-

ward to its termination in the right ilio-pubic region. A probe passed into the œsophagus was impeded at a length of twenty lines in a cul de sac. The stomach was absent. The lungs were in a rudimentary state. The kidneys in a state of hypertrophy. Both lungs and kidneys were in situ. The child (a female) was otherwise normally developed.

The puerperium was natural, except an anæmic state, which disappeared under the perchloride of iron combined with quinine. She left her bed on the 14th day, and her apartment on the 21st, quite recovered.

DROPSY OF THE AMNION.*

By JOHN J. PICKLES, M.R.C.S., L.R.C.P., &c., Leeds.

THE following case of dropsy of the amnion occurred in my practice in the latter part of last year (1879). I will detail a few brief notes of the case, and then give the various opinions as to causation and treatment which I have come across in reading on the subject in obstetric works.

Mrs. D. was a married woman, aged twenty-eight, and when she consulted me, in November last, was in her seventh pregnancy. She was a thin spare woman, who, owing to her husband being out of work, had not been able to get sufficient to eat. She had a family of small children, one of which is suffering from spinal disease; her other children appear healthy.

Her main symptom was pain in her left side and inconvenience from the size of her body. She stated that she had menstruated last in April, and therefore she did not expect her confinement until two months later (January).

I gave her an anodyne mixture containing ℥ doses of liq. opii sed. (Battley's), and told her to see me again in a few days, if no relief was obtained.

Nov. 17th.—Ten days after my first seeing the patient she sent for me to visit her at home, and I found her in bed. I made a careful examination of her body, and found great distension, which gave on palpation a distinct wave of fluid, very much resembling simple ascites. There was, however, dulness on per-

* Read before the Leeds and West Riding Medico-Chirurgical Society.

cussion on the surface, the bowels being kept down on either side. I could not detect the foetal heart. On vaginal examination I found the os dilated sufficient to admit the finger, and I could feel the foetal head distinctly in the amniotic bag. The legs were oedematous; urine scanty. She was completely worn out, having had no sleep for several nights.

I advised rupturing the membranes, and at 8.30 in the evening by means of a pointed quill, I punctured the bag of membranes, and I think I shall be on the outside when I say that at least two or three gallons of fluid escaped. This proceeding made her very faint, and I had to administer brandy. A slight show of blood followed the water, and pains came on, and followed each other rapidly, so that by 12.30 A.M., (four hours after I had evacuated the liq. amnii,) a living child was born, which only survived its birth twelve days. On examining the child after death the abdomen was full of ascitic fluid. The mother made a good recovery. The cause of this condition is as yet to some degree an unsettled question. There are various theories—as inflammation, constitutional syphilis, some diseased condition of the foetus.

Dr. Gervis, writing in one of the St. Thomas's Hospital Reports, considers that the majority of cases may be brought under three heads:—

- (1) Cases due to inflammatory conditions of amnion.
- (2) Cases where the decidua has been found diseased and hypertrophied, but the amnion healthy. This will cause effusion into amnion by transudation, owing to disturbed circulation. In these cases the foetus suffers and may atrophy.
- (3) It may arise from some maternal blood dyscrasia of uncertain nature, but evidencing itself by the same affection recurring in successive pregnancies in same patient. Puerperal albuminuria may be the cause, and comes under this head.

McClintock, in his "Diseases of Women," says that out of thirty-three cases, nine children were born dead, and of nineteen born alive, ten died within a few hours, the remainder survived. Four of the mothers died after labour, showing that the maternal mortality is high, a result which he refers to the debilitated state of the women who are the subjects of this disease.

ON THE CLASS OF CASES IN WHICH VAGINAL ANTEVERSION PESSARIES GIVE RELIEF TO SYMPTOMS.

By G. ERNEST HERMAN, M.B. (Lond.)

Assistant Obstetric Physician to the London Hospital.

(Continued from page 284.)

BUT there is another kind of pessary quite as useful in relieving the symptoms, but which is very properly not called an anteversion pessary, because its only effect upon anteversion is to increase it. I refer to Hodge's pessary. The cases in which this instrument is useful, are those in which yielding of the anterior part of the pelvic floor takes place in women who have not had children, and in whom the vagina is narrow, and it may be that a cradle cannot be put in without difficulty, and great pain to the patient. In such, a small Hodge's pessary will often perfectly remove symptoms, while at the same time it aggravates whatever anteversion there may be. This has been noticed by Emmet, who says,* "great relief may be obtained by even *increasing the degree of anteversion*, through the use of a pessary with a long enough curve in the posterior cul-de-sac, so as to lift the neck of the organ from the floor of the pelvis."

Before, however, we put in any pessary, the question arises, and ought always to arise, is a pessary needed at all? In many slight cases it is not, because astringent vaginal applications will so brace up the relaxed part, that the necessity for a pessary will be obviated. Where the symptoms, as sometimes happens, have come on suddenly, following, for instance, a strain in some violent effort, a few days' rest in the recumbent posture may be enough to remove them. In cases, as of unmarried women, in which there are evident objections to the use of pessaries, they should not be resorted to until other means have been tried, and have failed.

The remedies, therefore, that I find relieve the symptoms caused by yielding of the anterior part of the pelvic floor are the following:—First, and useful in slight cases only, rest, and astringent applications to the vagina. Next, in cases where these fail to relieve, Hodge's pessary, or one of its modifications. Where

* "Principles and Practice of Gynecology," first edition, p. 309.

this fails to give enough support to the anterior vaginal wall, Hewitt's "cradle" pessary ; and where the vagina is so large and loose as not to retain a small cradle, Thomas's pessary. Galabin's pessary (which may be described as Hitchcock's with the anterior part of the oval cut away, and the posterior part lengthened and curved upwards) I have found useful ; but have not tried it often enough to lead me to an opinion as to the class of cases to which it is peculiarly adapted.

I have only left to say something as to the degree of relief to be expected from a pessary. It is seldom that in these cases any vaginal pessary will completely remove, under all circumstances, every kind of pain, and enable the patient to retain her urine as long as she ever could when in perfect health. This appears to be because no vaginal pessary has any really fixed point from which to act ; the support of the anteversion pessary being the posterior part of the pelvic floor, which itself is not exempt from a tendency to yield like the anterior. Now and then relief does seem as if it were perfect and complete ; but this is seldom to be expected. The amount of benefit depends a good deal, of course, upon the suitability and proper adjustment of the pessary. We may generally predict this much, that the bearing down, instead of being constant, will be felt only after prolonged exertion ; and that the intervals between the calls to micturate, instead of being five or ten minutes only, will be extended to two or three hours. If we can do this, the patient will be comfortable under all ordinary conditions. More than this, it is not wise to promise.

As to how long the patient may need to wear a pessary, I cannot make any exact statement. It will depend upon the cause of that yielding which the pessary corrects. If the condition which has led to the yielding be a transitory one, capable of recovery or cure, when it has been removed, the instrument will no longer be required. But if it tend to persist or get worse, the necessity for a support of some kind will continue.

I narrate the following cases, in illustration of what I have been saying. They are specimen cases of the group I have been trying to describe and explain.

(Reported by Mr. Herbert Appleford.)

CASE I. J. F., a drayman's wife, aged thirty, came to the obstetric out-patient department of the London Hospital on Dec. 3rd, 1879. Her complaint was, that on coughing, or exertion, a lump came

down, and that her urine ran from her every minute. She had had five children, and three miscarriages; the last child, which she was still suckling, was born ten months ago. Her labours had all been long, the last one especially so, and she had usually lost a good deal of blood afterwards; but there was no account of any more definite complication or post-partum illness. Since her last confinement she had never been quite well; felt weak; her legs used now and then to give way and double under her; and she would come over blind now and then without any apparent cause. She had suffered from "whites" ever since she began to menstruate, and this had been worse since the last confinement. There was no account of anything wrong with menstruation. There was no pain in micturition, nor was there any rectal trouble. She had a feeling of weight in the groins, but no other pain anywhere. Appetite was good, and the bowels regular. She had had a cough for three or four weeks, and the lump had come down, and her urine began to run away, about five days before coming to the hospital. These symptoms—the inability to hold her urine, the lump coming down, and the feeling of weight in the groins—were her sole troubles.

She looked somewhat worn, as if older than she was. On examination, it was found that when she strained the anterior vaginal wall protruded slightly between the labia. The vagina looked healthy, but contained purulent secretion. The uterus was in a position of slight anteversion; it was not enlarged, the cavity measuring $2\frac{1}{2}$ inches in length. The cervix was fissured, reddened round the os, but not granular, and contained transparent secretion. The urine was free from albumen. A rather large-sized "cradle" pessary was put in.

December 5th, she again attended. The instrument caused a good deal of discomfort; while wearing it she was troubled with a constant desire to defæcate, but she could retain the urine much better. She was so uncomfortable that after wearing the instrument for twenty-four hours, she took it out. The urine then began to run from her as before. A Thomas's pessary was now put in. This she said was quite comfortable; the cradle was uncomfortable from the beginning.

December 9th.—She says she now passes water only three or four times daily. The bearing-down pain has gone completely, and the lump does not come down at all. At the time this note was written, noon, she had only passed water once since rising in the morning.

December 31st.—On the 25th the instrument slipped out. She replaced it herself on the 26th. Her symptoms, she says, returned when the pessary was out, and again disappeared when she replaced it.

It should have been mentioned, that from the beginning of treatment she was given a mild aperient mixture, and tannic acid pessaries; the medicine to be taken three times a day, and one of the pessaries to be put into the vagina every other night.

Jan. 14th.—Since the last note (owing to some oversight), she has had no tannic acid pessaries. During the last week she has been unable to hold her urine so well. On examination it was found that the pessary has so changed its position that the limb looks backward. The pessary removed, and replaced by a larger one.

Jan. 21st.—She has again used the tannic acid pessaries. During the week she has found the instrument so uncomfortable that she took it out. She finds that she can now retain her urine without wearing a pessary. Her cough is now very much better.

In this case the order of events seems to have been, first, long-standing vaginal catarrh, leading to softening and relaxation of the walls of this canal. Then, following delivery, a more severe degree of this catarrh. Then a cough, leading to frequent sudden augmentations of the intra-abdominal pressure; the result of these conditions being the slight yielding of the anterior part of the pelvic floor, leading to a commencing cystocele. The symptoms were relieved at once by a pessary which pushed up the bulging part. The use of vaginal astringent applications was not at first enough to prevent the yielding; but when the cough got well, and the patient thus became free from the sudden augmentations of the intra-abdominal pressure taking place during its paroxysms, then the effect of vaginal astringents became sufficient to prevent descent.

CASE II.—M. J., aged thirty-two, laundrymaid, applied for advice May 13th, 1876. She had had one child, ten years ago, but was never again pregnant. Had been a widow for the last five years. For the last twelve months she has felt weak, and been unable to hold her water properly. During the last three or four months she has had to pass it every twenty or thirty minutes. She had nothing else to complain of; menstruation was regular, the flow lasting two or three days, the quantity being variable, attended with only slight pain. She had at times had leucorrhœa, but not

lately. There was no rectal trouble ; appetite was good, and she slept well.

On vaginal examination, the cervix uteri was found to point backwards. The body of the uterus could be felt through the anterior vaginal wall, and was inclined much more forwards than usual ; there was no appreciable curve in the axis of the uterus. The sound entered three inches. Nothing else abnormal could be detected in the condition of the pelvic organs. A Thomas's anteversion pessary as (modified by Murray), was applied. Immediately after introduction, the limb lay in contact with the anterior part of the frame, the spring being apparently unable at the time to counteract the pressure opposed to it.

May 17th.—She can now retain her urine for two hours. The cervix uteri now points more downwards ; the limb of the pessary has risen to its full extent, and is in contact with the anterior part of the cervix, so that unless the womb be very much bent, the pessary cannot be touching the uterine body.

For about a month the relief from symptoms continued ; then the patient began to complain that her control over the bladder was again getting less ; she could only hold her water an hour, although she was wearing the pessary. It seemed, therefore, as if the benefit which at first appeared to have resulted from the pessary was illusory ; and on July 5th, the instrument was removed. She then went into the country, where she had the advantage of rest, as well of change and country air. When she came back, July 26th, she said she could hold her urine for two hours. On August 23rd, she again came for treatment ; the urinary trouble being as bad as when she first sought advice. A Thomas's pessary was again introduced. On Sept. 21st, she complained that she was still no better. She was then admitted into the hospital, and the pessary was removed. On Oct. 9th, it was noted that she had been lying in bed since the last note, and that she could now go six hours without passing water. She was allowed to get up. On Oct. 14th, she said that since getting up she had been unable to hold her urine. The condition of the pelvic organs was the same as when she first applied for treatment. ; there was no discharge. On Oct. 17th an alum lotion (ʒss. ad Oj) was prescribed.

Nov. 8th.—She has now gone back to work ; she says she has derived much benefit from the alum injection.

Dec. 18th.—Again she came, saying that she could not hold

her urine longer than an hour or so. Galabin's anteversion pessary was introduced.

Feb. 13th, 1877.—She now passes urine about every hour and a half. Is in no pain, and there is no evidence of any injurious effect from the instrument.

April 23rd.—Condition much the same. No evidence of any bad effect from the pessary ; but no marked improvement.

Soon after this the Galabin's pessary was taken out, and a large-sized cradle put in. She then either discontinued attendance, or notes were not made at the times when she did attend, until March 30th, 1878, when she came under the care of my colleague, Dr. Stephen Mackenzie. She was still wearing the pessary, and could hold her urine for two hours. She thought that this instrument suited her better than either of the former ones. As she was in the ward, keeping her bed, the pessary was removed. She was sent to Dr. Mackenzie, because some one she consulted had tested the urine, and thought that he found sugar in it. Dr. Mackenzie repeatedly examined the urine while she was under his care, but never found it contain any abnormal constituent ; nor could he find signs of disease in any part of the body excepting the pelvis. She left the ward on April 15th, soon after which date the pessary was, at the patient's request, reapplied. She did not again show herself till Sept. 28th, 1879, when the pessary was again removed, that she might see whether she could not do without it.

Dec. 12th.—She came back, asking to have it replaced. She said that when out of doors she had to pass water about every twenty minutes, and when indoors every hour ; whereas, with the instrument, she could retain it an hour out of doors, and for a longer period indoors. The cradle was therefore reinserted.

Dec. 27th.—The pessary was again removed, that she might see whether she could not do without it. She was told to rest as much as she could.

Feb. 25th, 1880.—She again came. Since leaving off the instrument, her condition as to control of the bladder has not much altered. During the daytime she is obliged to pass water about every hour. She can, however, generally go the whole night through without having to do so. Since discontinuing the instrument she has been suffering from "weakness," a slight pain in the back, and also a slight "bearing-down pain" in the lower part of the abdomen. She thinks that this pain is due to the

leaving off of the instrument, because during the last three years she has suffered from the same kind of pains once or twice when the instrument has been taken out for a time.

I narrate this case, because it is in many respects the opposite to the preceding one. The yielding of the anterior part of the pelvic floor here produced anteversion, instead of cystocele, as in the former case. The cause of the yielding seemed to be in the patient's general health, a want of tone (how or why brought about I know not) in the structures forming the pelvic floor, making them unable to withstand the pressure put upon them through the patient's laborious occupation. The symptoms were invariably relieved by a pessary which pressed up the part which had yielded, and they generally returned when the pessary was removed. They were also relieved (and for the time, more than by anything else) by lying in bed, and also by a visit to the country, with the rest from work which it involved. The symptoms were just the same as in the case of cystocele. In that case a cradle pessary did not give such complete relief as a Thomas's, while in this the Thomas's was not so successful as the cradle.

I could quote from my note-books other cases resembling these.

I will conclude by recapitulating the opinions expressed in the Paper, as shortly as I can put them.

1. Anteversion pessaries are certainly useful only for cases in which the morbid condition consists in a slight degree of yielding of the anterior or pubic part of the pelvic floor.

2. Such yielding produces most commonly cystocele, sometimes anteversion, occasionally both; and the same symptoms are produced, and the same treatment will relieve, whichever of these conditions be present, the position of the uterus being comparatively unimportant.

3. The symptoms which this yielding produces are—irritability of the bladder and bearing-down pains.

4. These symptoms, when dependent on such yielding of the anterior division of the pelvic floor, are at once and certainly relieved when support is given to that structure.

Notices and Reviews of Books.

Das Skoliotisch und Kypho-skoliotisch Rachitische Becken, nach eigenen Untersuchungen an den Lebenden und an Präparaten. Von Dr. C. G. Leopold, Privatdocent der Gynäkologie an der Universität Leipzig. Mit 14 Holzschnitten und 15 Tafeln in Lichtdruck. Leipzig, 1879. pp. 88.

(*The Skoliotic and Kypho-skoliotic Rachitic Pelvis*. By Dr. C. G. Leopold, &c. Leipzig, 1879.)

Weitere Untersuchungen über das Skoliotisch und Kypho-skoliotisch Rachitische Becken. Von Dr. G. Leopold, &c. Mit 1 lithogr. Tafel. (Separatabdruck aus dem *Archiv für Gynäkologie*, Band XVI. Heft 1.) pp. 23.

(*Further Researches upon the Skoliotic and Kypho-skoliotic Rachitic Pelvis*. By Dr. G. Leopold, &c. (Reprinted from the *Archiv für Gynäkologie*.)

THIS magnificent work reflects the greatest credit both upon the author and the publisher. The subject certainly has never been treated so thoroughly or so exactly before, and in a sense it may be said that it has never been treated at all.

The author begins with a very complete outline of what previous workers have done at the subject, and then, taking it up where they have left it, he sets forth the results of his own investigations.

He first describes the *skoliotic rachitic pelvis*. He finds that skoliosis of the vertebral column does not at all diminish the characteristic peculiarities of the rachitic pelvis, but rather accentuates them. But it renders the pelvis asymmetrical, the deformity produced depending upon three factors: first, the pressure and counter pressures upon the pelvis; second, the traction of the ligaments; and, third, of the muscles. The degree of asymmetry depends upon that of the skoliosis. The shape of the cavity of the fully developed skoliotic rachitic pelvis is definite. Its characters are these: at the level of the pelvic inlet its outline is of a blunt, obliquely compressed heart-shape, its capacity being more or less diminished on the side of the lumbar skoliosis, and correspondingly increased upon the opposite side. The opposite is the case at the outlet. At this level the pelvis is widened upon the side of the lumbar skoliosis, and narrowed upon the opposite side.

There is considerable shortening of the true conjugate. There is also diminution of the antero-posterior measurement at the outlet. In the simply rachitic pelvis the antero-posterior diameter of the outlet exceeds the true conjugate by as much as 50 per cent., while the difference in the skoliotic rachitic pelvis is only about 17 per cent. This character is a very important one, for in the kyphoskoliotic rachitic pelvis the opposite condition obtains, the antero-posterior diameter at the outlet being smaller than the conjugata vera. The author explains upon simple mechanical principles the reason of these peculiarities.

In the simply rachitic pelvis the weight of the trunk displaces the sacral promontory downwards and forwards, the apex of this bone changing its position in the converse direction—*i.e.*, upwards and backwards. But if in consequence of skoliosis the pressure on the base of the sacrum is directed forwards and to one side, the effect of the weight is, so to speak, divided, producing partly a forward and partly a lateral deviation, and the forward displacement of the promontory (and the corresponding tilting backward of the apex) will be less in proportion as the lateral deviation is great.

On the side of the lumbar skoliosis the anterior superior iliac spine is further removed from the tuber ischii, and the two anterior iliac spines and the middle of the iliac crest are more distant from the symphysis pubis, while the measurement between the latter point and the tuber ischii is less than on the opposite side. The pubic symphysis is displaced towards the side opposite to the lumbar skoliosis. The sacro-cotyloid measurement of the pelvis is shorter on the side of the lumbar skoliosis.

The author points out, that the question arises, whether these peculiarities may not be congenital, and the skoliosis a result of the pelvic deformity? and whether they may not sometimes depend upon shortening of one of the lower extremities? Hohl has described obliquely distorted pelves in children, which he regards as a result of defective development of one side, associated with skoliosis, in his opinion secondary to the pelvic deformity. The author takes the contrary view, on the ground that the alterations presented by these pelves are collectively exactly such as would be produced by pressure, and occur in a degree corresponding to the amount of the pressure, and can not be accounted for by deficient development of any part of the pelvis. He does not doubt that it is possible for deficient development of one-half of

the sacrum to produce deformity of the pelvis and spinal curvature : but thinks that the peculiarities of such cases have yet to be described.

With regard to the second question, he has no doubt that difference in the length of the lower extremities, with rickets, will produce asymmetrical deformity of the pelvis, and skoliosis ; but the skoliosis will react upon the pelvis, and the resulting deformity will be essentially the same as that brought about by skoliosis and rachitis only. The result will be the same, although the order of events is different. There is one feature only which is not so marked in these cases as in those in which the primary condition is skoliosis—viz., the shortening of half of the sacrum.

The author exhaustively considers the effect of different degrees and kinds of spinal skoliosis upon the lateral deviation of the sacrum and the shape of the pelvis, and then shows that the degree of such inclination of the sacrum is the measure of the pelvic deformity ; that the difference between the sacro-cotyloid measurements on the two sides increases with, and in proportion to, the sacral obliquity.

A most important fact in relation to the diagnosis during life of skoliosis (and the resulting modifications in the shape of the pelvis), is this : that owing to the rotation of the individual vertebræ, the line formed by their spinous processes departs far less from the normal than that formed by the vertebral bodies, and this is especially the case in the lumbar region : hence that there may be a considerable degree of lumbar skoliosis, and yet an examination of the vertebral spines in that region may not reveal any curvature. An example of this difference will be seen in the fact, that in one case, the line formed by the vertebral *spines* was distant (at the extreme point of the curve) from the vertical plane two and a half centimeters in the lumbar, and five and a half in the dorsal region ; while that formed by the *bodies* of the vertebræ was removed nine in the lumbar, and eleven and a half in the dorsal region. This torsion of the vertebræ of course carries the transverse processes on one side back, on the other side forward. With practice, according to the author, the row of transverse processes which is rotated backwards may be sometimes made out, and thus the degree of the curvature correctly estimated. He is obliged, however, to state that many more observations are needed before the diagnosis in the living subject of this condition of spine and pelvis can be accurately made out, until, of course,

difficulty in delivery reveals the state of the latter part. For the present, the most characteristic feature of the skolio-rachitic pelvis which can be ascertained during life, is the narrowing of the brim, and the widening of the outlet, which takes place on the side of the convexity of the lumbar curve.

The second part of the work is devoted to the consideration of the changes which the ricketty pelvis undergoes, when, to skoliosis of the vertebral column, is added kyphosis. To understand these alterations it is necessary to bear in mind the effects upon the pelvis of simple kyphosis. These are, as is known, a rotation of the sacrum upon a transverse axis, its upper end moving back, and its lower end forward; and a change in the shape of this bone, which becomes longer, and in its upper part straighter; alterations also in the shape and position of the innominate bones, leading to their greater separation above, and approximation below, producing widening of the pelvic inlet, especially in the conjugate diameter, and narrowing of the outlet, most considerably in the transverse measurement, all these changes being the greater in degree the lower down the kyphosis is situated. The peculiarities are almost the exact opposite of those which characterize the rachitic pelvis. In ricketty subjects, however, kyphosis is hardly ever the primary and sole curvature of the vertebral column; it is almost always combined with skoliosis. In these cases, therefore, there are three kinds of deformity to be considered: first, the signs of rickets; second, the asymmetry produced by skoliosis; and third, the changes caused by kyphosis, and tending to diminish the rachitic deformity. The sacrum undergoes changes which are, as it were, midway between those of kyphosis and those of rickets. As in the former, the upper part of the sacrum is displaced upwards and backwards, and the lower forwards; and the sacrum is situated higher, with respect to the innominate bones, than is usual in the rachitic pelvis. Its breadth is diminished, and its length increased, as in kyphosis. But the convexity of the bodies of the sacral vertebræ due to rickets is not removed or altered by the presence of kyphosis. There is also the asymmetry brought about by skoliosis, the sacrum being, on the side exposed to the greater pressure, compressed, although not to the same degree as in the skoliotic-rachitic pelvis.

The two ossa innominata resemble in many points the kyphotic type, but are considerably altered, in consequence of the asym-

metry of the pelvis. If, for instance, there be kypho-skoliosis of the lower dorsal region on the left side, then the compensatory right skolio-lordosis of the lumbar spine will lead to undue pressure upon the right half of the pelvis: the right os innominatum will be pressed upwards, backwards, and towards the middle line, and will be consequently higher and less curved than the left. The ilium will be more upright, shorter from before backwards, and looking more inwards than usual: while conversely the left will be flatter, broader, and looking more forward than natural: as a consequence of the pulling on it of the ilio-sacral ligaments. Compared with those of the skoliotic rachitic pelvis, both ilio-pectineal lines are somewhat lengthened, in consequence of the upward and backward movement of the sacrum. The right acetabulum is pressed more or less upwards and inwards. The pubic symphysis is to the left of the middle line. In short, in the kypho-skoliotic rachitic pelvis we find an inlet more or less rounded, but eventually flattened on one side, with a true conjugate diameter corresponding to the kyphotic type, that is, relatively or absolutely increased, but which is nevertheless always exceeded by the greatest transverse measurement. The antero-posterior diameter of the outlet is relatively and absolutely diminished. The normal conjugate (*i.e.* from the top of the symphysis pubis to the third sacral vertebra) is shortened as compared with the normal pelvis, but longer than in the rachitic pelvis. The distance between the anterior superior iliac spines is increased. The transverse diameter at the outlet is diminished. The shape of the pelvis is funnel-shaped, exactly the opposite of the rachitic type. In its more symmetrical forms, it gradually diminishes in size from the inlet to the outlet, but in the asymmetrical specimen it diminishes regularly in the antero-posterior and transverse diameters, but the sacro-cotyloid measurement, on the contrary, is on the side which is compressed, narrow at the inlet, widened at the outlet.

Having described the kypho-skoliotic rachitic pelvis, the author proceeds to account for its production. The factors which produce it are the weight of the trunk, the traction of muscles and ligaments, and the counter-pressure of the lower extremities, exerted through the heads of the femurs. Although these act jointly in the production of the pelvic deformity, yet it does not follow that the relative efficiency of each of them is always the same. The mode of production is to be made out by the comparison of the normal

infantile pelvis, the infantile rachitic pelvis, of the skoliotic rachitic pelvis, and had we such a specimen, of a kypho-skoliotic pelvis in a child. A preparation of the latter kind is unfortunately wanting : and none such has been adequately described.

So long as the vertebral column is straight, and the two legs of equal length, the deformity of the pelvis resulting from rickets is symmetrical. But if, from skoliosis, the sacrum undergoes lateral deviation, then the corresponding half of the pelvis becomes compressed.

Dr. Leopold minutely and carefully describes the effect of dorsal kypho-skoliosis in producing a compensatory curve in the lumbar region. The result of his research into this point is this : that in moderate or considerable degrees of kypho-skoliosis in the lower dorsal region, a lumbar skolio-lordosis is produced upon the opposite side ; but in the highest degrees of such curvature it is not so. We cannot summarize the author's elaborate statement of the reason for this, nor into the mode of production, by such spinal curvature, of the pelvic deformity previously described, which Dr. Leopold explains with equal care and acumen.

It is to be noted, that although the degree of asymmetry in the kypho-skoliotic pelvis may be considerable, yet it is not so great as in the skoliotic rachitic. As a rule, the brim of the asymmetrical kypho-skoliotic pelvis is narrowed upon the side which is opposite to the dorsal curvature. But there are exceptions to this rule, the production of which Dr. Leopold explains too elaborately for condensation. The exceptions, as well as the rule, support the general proposition, that the configuration of the vertebral column exerts a great influence upon the shape of the pelvis, and that it is of the highest importance for the symmetry of the pelvis that the weight of the trunk should be equally distributed upon the two sides of the pelvis.

The Paper, whose title stands second at the head of this article, and which has appeared in the *Archiv für Gynäkologie*, owes its existence to a visit which the author paid to Paris, where he took the opportunity of examining the specimens of skoliotic and kypho-skoliotic rachitic pelvis which the museums of that city contain. The result is, that the views already expressed by the author in his larger work received confirmation from the study of these further examples ; and not only so, but, thus investigating the subject from larger materials, he is able to explain the occurrence of apparent exceptions to the rule ; to show

more fully that all the variations in shape which such deformed pelves present, can be explained by the co-operation of the three factors which he had referred to at the beginning of his work : the weight of the trunk, transmitted through the sacrum, the counter-pressure of the extremities, and the traction exerted by muscles and ligaments. It would be impossible, within the limits of a review, to follow the author, in his application of these principles, to the different kinds and degrees of kyphosis and skoliosis, and their combinations with one another. We can only say, that the author follows them out in a most elaborate and scientific manner, and that his works must be carefully studied from beginning to end by all who wish to understand the production of these kinds of pelvic deformity. We would say more than this, for these researches throw light on the production of pelvic deformity in general. No one can study these works without rising from them with a clearer and more exact conception of the causes which influence the shape of the pelvis. Dr. Leopold is careful not to assert that for which he has not ample proof ; where material fails him, and his speculations cannot be brought to the test of observation, he is careful to point out the deficiency, and hence his work not only contains an account of work done, but points out the gaps in our knowledge of the subject, and is thus full of suggestions for future workers. He is, we venture to think, on the right line in looking at the subject from a strictly mechanical point of view, and this, Litzmann, for instance, was not. He has followed out, and demonstrated in detail, much of what was hinted at by Rokitansky. His researches have an interesting bearing upon many allied questions not coming strictly within the field of these monographs. The theory of Dubois and Gavarret, as to the wedge action of the sacrum, and the part played by it in the development of the pelvis, which was attacked by Matthews Duncan, and, in the opinion of many, successfully, seems to us, by these researches of Leopold, completely proved to be erroneous. It is impossible, upon the theory of Dubois and Gavarret, to account for the formation of the asymmetrical kypho-skoliotic pelvis, while the simple mechanical view which Leopold, like Duncan, applies to the problem, completely satisfies the requirements of the problem. The work of Duncan, not only upon the function of the sacrum, but upon the oblique pelvis of Naegelé, the pelvis of Robert, &c., is confirmed in every respect by the observations of Leopold. Our

author shows, moreover, what is of great interest, and has not always been recognized—that hypoplasia of affected bones is not of necessity congenital.

This book, and the Paper which supplements it, are not of scientific interest merely, but are of great practical value. There are few things which help the practising accoucheur more, than to know beforehand the kind of difficulty he will meet with in a particular case, and where it will occur. It cannot be long before some short epitome of Leopold's work will be found in every complete treatise on midwifery, beside the descriptions which such works now contain, of the rachitic, osteo-malacic, &c., pelvis.

We beg leave to offer the author our thanks for the great and valuable contribution he has made to obstetric science.

Abstracts of Societies' Proceedings.

OBSTETRICAL SOCIETY OF LONDON.

Meeting, Wednesday, May 5, 1880.

W. S. PLAYFAIR, M.D., F.R.C.P., *President, in the Chair.*

Encephaloccele.

Dr. GODSON showed photographs and a cast of the head of an infant, the subject of a large encephaloccele. Nearly half of the brain was contained in a sac outside the cranium, a very narrow peduncle, passing through the anterior fontanelle, connecting it with the portion within the skull. The head with the tumour resembled an hour-glass. The child lived a month, and had never cried. She had no convulsions till just before death.

On Recording the Fœtal Movements by means of a Gastrograph.

By Dr. BRAXTON HICKS.

The author called attention to two notes published in the Proceedings of the Royal Society for March 1879, entitled "On the Auxiliary Forces concerned in the Circulation of the Pregnant Uterus in Woman," and "Note on the Supplementary Forces concerned in the Circulation of the Abdomen in Man." In the present paper tracings were brought forward taken from the NO. LXXXVIII.—VOL. VIII.

abdomen by means of an instrument like a cardiograph and a polygraphic cylinder. Foetal movements of two sorts were shown. 1. Sudden kicks, shown by sharp marks indistinguishable from movements of the maternal limbs. 2. Slow turnings about in utero, shown by a gradual elevation of the line of wave for some distance. Both kinds of marks were superposed upon the respiratory waves.

Dr. EDIS remarked that one point alluded to by Dr. Hicks in his paper—viz., the voluntary movements of the foetus from one position to another, was of great practical value in dealing with the question of version by external manipulation. In 1873 Dr. Edis had drawn attention to this subject in a paper recorded in the fourteenth volume of the Society's Transactions.

Remarks were also made by Dr. John Williams and Dr. R. Barnes, and Dr. Hicks replied.

Case of Extra-Uterine Fœtation about the Seventh Month of Pregnancy—Sudden Urgent Symptoms—Removal of Fœtus by Abdominal Section—Death.

By Dr. BRAXTON HICKS.

The patient, aged twenty-nine, married ten years, had had two children, one seven years, the other four years since, no miscarriages. In April, 1879, she was taken with severe vomiting and abdominal pain, for which she was kept in bed a month. After getting up, she said that her womb came down. In July she was admitted into Guy's Hospital under Dr. Galabin, and then thought herself about six months pregnant. Only the fact of pregnancy, together with a swelling behind the cervix, was then made out, and she shortly left the hospital. In the first week of August she was readmitted under the author, in the absence of his colleague. A tense enlargement then extended on the right side, three inches from the middle line, up as high as the umbilicus, whence it rose nearly to the left ribs, towards the flank, and extended downwards, filling the whole left hypogastric region. This evidently contained a living foetus. A so-called "placental bruit" was heard over the centre of the abdomen, below the umbilicus. The cervix protruded through the vulva, the external os patulous, so that the finger could reach the internal os, which was closed. The sound could not be carried into the uterus beyond the unimpregnated length. For greater assurance he had a sponge tent introduced into the uterus; but

nothing was found within but some fragments of decidua. At the end of a week she was suddenly taken with increased pain and distension of lower abdomen, shortly followed by collapse and pallor, pulse rising to 140, thready, temperature normal. She said that while sitting by the side of the bed she felt something give way in her lower abdomen, upon which the foetus kicked violently; and then she became faint, and shortly after the movement ceased entirely. Three hours later the author found her in great distress from the tension, saw that evidently blood had been effused internally, and decided to operate, as the only chance for her life. This was done under carbolic spray, the incision being made in the median line, which had now become the most prominent part. A cavity was opened containing a large quantity of dark watery blood, which had evidently been effused within the placental area, and had been the cause of the symptoms. After its escape the chorion was ruptured, and the lifeless foetus, about the size of a large six months normal foetus, extracted. Not much more blood flowed, and the wound was closed, except an opening one and a half inches long. The patient, however, began to show signs of sinking, and died shortly after. At the autopsy it was found that the placenta extended up the abdominal wall in front almost to the umbilicus, and was not attached to uterus or bladder. The sac was adherent in all directions to intestines and other parts. Its lowest portion was attached in front of the uterus and behind the bladder. On the anterior surface of the uterus was a pedunculated fibroid as large as a walnut. The right Fallopian tube, firmly bound by adhesions, crossed the anterior surface of the uterus, and was attached to the lower surface of the fibroid, terminating in some loose tissues under the placenta. The right ovary was adherent to the right side of the amniotic sac, and contained a large corpus luteum. The author remarked that the case was the analogue of concealed accidental hæmorrhage in normal pregnancy, and that it was a clear case of true ventral pregnancy, and he asked the opinion of the Society how the hæmorrhage should be stopped, if the operation were performed during entire foetal life, and the placenta found situated as in this instance. He thought that carbolized sponges might be kept within, for a time, and a compress maintained, since rigid antiseptic treatment would be impossible.

Dr. WILTSHIRE said that several important points were raised by Dr. Hicks's interesting Paper. He would touch upon two of

the most important. First, as to the occurrence of the peritoneal form of extra-uterine pregnancy. He thought no one acquainted with the subject could doubt that this occurred ; and he instanced a case of Koeberlé's, in which peritoneal pregnancy ensued after the ablation of an inverted uterus ; the ovaries being left, and the semen gaining access to the ovule through a fistulous opening at the top of the vagina ; and another in which the roof of the vagina was ruptured by forcible coitus. He thought Mr. Jessop's remarkable case also illustrated this view. Dr. Wiltshire held that mucous membrane was not necessary for the growth of a fertilized ovum ; and he believed that the ovule, after fertilization, had a parasitic power of growth, stimulating the surfaces to which it attached itself to increased vascular development. It could, therefore, well undergo development in the maternal peritoneum, and he believed it might do so even in the male peritoneal cavity, were its removal thereto after fertilization possible without loss of its vitality. Dr. Wiltshire mentioned a case which had occurred in his own practice, which resembled Dr. Hicks's. The other point upon which Dr. Wiltshire dwelt was that of the treatment of the placenta ; and he said that although he would strongly advocate the plan of leaving the placenta untouched, yet he thought that in Dr. Hicks's case, as the incision had been right into the placenta, and a large amount of separation between it and the abdominal wall had taken place, with so much hæmorrhage, it might have been justifiable to remove the remainder, and, if there were much hæmorrhage, to have brought the internal aspect of the abdominal parietes together by deep suture or pins. Still the rule was good not to remove the placenta ; exceptions, however, must be admitted.

Dr. ROUTH, after a few remarks on the value of Dr. Hicks's Paper, backed as it was by vast experience, yet thought he must differ from him in one or two particulars. First, why not have endeavoured by auscultation to make out the exact position of the placenta ? If the operator had done so, *perhaps* he might have avoided cutting down in the median line, and so wounding the placenta. With our present knowledge of abdominal surgery it was in no way necessary to cut in the median line ; the incision might have been on either side ; the present appliances for arresting hæmorrhage from section of a large vessel were so complete, that no fear need have been entertained on this score, and so hæmorrhage from wounding the placenta might have been avoided

altogether. Second, why perform gastrotomy at all? Why not have contented himself with injecting morphia into the amnion, or drawing out the amniotic fluid with an aspirator, and so killing the child? It appeared that it was owing to the active movements of the child, that so much pain was suffered, and that a portion of the placenta was separated. Now the records of obstetric medicine proved that the death of the child might have been readily effected by injection of an opiate; and another result in such cases was, that both the placenta and child withered away and were absorbed, and possibly the bones might have been discharged at a later period in the contents of an abscess, or could have been removed, as in a case shown this very night, and the patient's life saved.

In reply to the President, Dr. Routh said that two drops of laudanum administered had, as he had seen, killed a new-born child, but as much as a quarter to half a grain of morphia could have been injected into the amniotic sac without detriment to the mother, and would have ensured the death of the child.

Dr. GERVIS said Dr. Routh's remarks opened up the entire question as to the alternatives of primary gastrotomy in extra-uterine foetation. It was doubtful whether as yet sufficient data had been collected for a positive decision, but every additional case was valuable. Some eighteen months ago he had had a case, resembling in some of its symptoms, and in the abdominal position of the child, the one narrated by Dr. Hicks, and in which, on account of the pain, sickness, and exhaustion of the patient, primary gastrotomy was decided upon. In the operation not much difficulty was met with, and but trifling hæmorrhage, the position of the placenta being mostly in the pelvis, and below the level of the abdominal incision; but the patient died in about three days, as the result of a continuous hæmorrhagic loss through the drainage tube, which set in the day after the operation. The examination after death revealed no indications of peritonitis, but more or less separation of the placental margins. A very important point, therefore, for consideration, was whether, when leaving the placenta *in situ*, any treatment could be applied to it which would lessen this danger. Had it not been for the consolidation of the vaginal roof to which Dr. Hicks referred, it might, in his, and in any similar case in which there was reason to believe that the placenta was behind the proposed line of abdominal incision, be well to try and get at the foetus through the vagina.

The PRESIDENT was surprised to hear Dr. Hicks say that perfect antiseptic treatment was impossible, and thought that the chief hope of progress in such cases lay in carrying it out completely, however difficult it might be.

Dr. J. WILLIAMS thought that the insertion of a tent into the cervix was superfluous for diagnosis, and that it possibly had something to do with the sudden accession of severe symptoms.

Dr. EDIS called attention to a valuable monograph on extra-uterine gestation, by the late Dr. John S. Parry, of Philadelphia. He therein says: "Of the true value of narcotic injections into the cyst we can say nothing. The facts in our possession are not enough to make any deductions valuable." In reference to tapping the cyst and drawing off the liquor amnii, he states: "All measures that necessitate wounding the cyst without removing the child, are not without danger to the woman. The facts now in our possession indicate that the child ought to be either removed entire, or the cyst be allowed to remain uninjured."

Dr. BARNES was inclined to think that the present might be reckoned among a few exceptional cases, in which removal of the placenta might be justifiable; the hæmorrhage being afterwards stopped by compressing the abdominal walls together.

Dr. BRAXTON HICKS said that most of the speakers had mistaken the state of the case which was this: that having diagnosed certainly the case, while waiting for a short time to consider the best line of treatment, the urgent symptoms suddenly came on. Then the enlargement and tension in front was so great that it seemed to obliterate the previous outline. Dr. Hicks therefore incised the median line as being the most simple procedure: and, after all, it might be matter for discussion whether the cutting into the placental site in such a case as this was so very disadvantageous. For he differed from Dr. Routh as to the conclusion that might be arrived at from the violent movements of the fœtus. This he would and did consider as evidence of the impending death of the fœtus from asphyxia: and the risk from incising the placental site was not so great. In any case, Dr. Hicks would not take the existence of a bruit heard on the left side of the median line as a conclusive proof of the position of the placenta, at least so far as to make him alter the place of incision if other circumstances pointed to the middle line as the best. As a matter of fact no great amount of recent blood was lost during the operation, the blood escaping being that previously effused.

But the point upon which he was desirous of the opinion of the Society, was what line of management should be followed if the placenta were cut into, the fœtus being alive? With regard to the removal of the placenta in such a case as the one narrated, he could not agree with Dr. Barnes that it would be safe from the hæmorrhage, as it was attached deep down towards the pelvis, and should oozing occur, it would be difficult to reach. Besides, in this case we should expose the peritoneal cavity, which would add to the risk. For in any case he thought, contrary to the opinion of the President, that in the very frequent manipulations which a case such as this required, the antiseptic treatment would be exceedingly difficult to carry out so as to be at all times complete, though he would not deny that under extremely advantageous circumstances it could be.

Two Cases of Extra-Uterine Fœtation.

By Dr. G. F. FULCHER.

On July 10th, 1872, the author was called to the wife of a cottager, who was suffering from intense abdominal pain, and showed signs of violent internal hæmorrhage. There was no vaginal discharge; the uterus was moderately enlarged, and its fundus tilted backward; extra-uterine fœtation, with rupture of sac, was diagnosed, and the patient died in a few hours. At the autopsy, a fœtus of about five months was found in the abdomen, together with a detached placenta, whose attachment had been parietal. Both tubes were intact. The final attack came on while the patient was drawing water from a well. There had been frequent uterine hæmorrhage previously. She was thirty-one years old, and this was her third pregnancy.

CASE II.—A woman, thirty-two years old, pregnant for the second time, was expecting her confinement in November or December, 1879. On December 6th, the author was summoned, on account of paroxysmal pain with sickness. He found the uterus only moderately enlarged, retroverted, os pointing forwards and upwards towards the symphysis. The fœtal heart was heard over right side of abdomen. Next day, in consultation with Dr. J. B. Maurice, the uterus was ascertained to be empty. It was decided to remove the patient into the Savernake Hospital, there to perform gastrotomy, but some inevitable delay occurred. Reference was also made to an eminent authority in town, who

said that it was better, *cæteris paribus*, to wait until the death of the foetus and then quietly to operate. The foetal heart was heard up to the 12th, and movement continued up to the 14th. She was removed on the 16th, at which time the violent paroxysmal pains had ceased. On December 18th, peritonitis having set in, the operative measures were abandoned, and she died on the 26th. The autopsy revealed a large child, weighing nine-and-a-half pounds, placenta attached over left iliac fossa, broad ligament, and abdominal wall up to the linea alba. The cavity contained grumous foetid fluid.

Dr. EDIS, without in any way wishing to express any criticism upon these cases, thought that in the latter, when the diagnosis had been clearly made out, an operation might possibly have saved both mother and child. With the modern improvements as regards abdominal surgery, the risk attending such severe operations was very materially diminished, and there was little doubt that, years hence, the perusal of cases like these would be less frequent.

Dr. ROUTH said that there was no doubt Dr. Fulcher had done the best he could, under the circumstances. But when gastrotomy was impracticable, the injection of morphia and removal of the amniotic fluid by the aspirator would have been very easy: and this enabled him (Dr. Routh) to reply more effectively to Dr. Edis's remarks. It was one thing to use the *trocar*, and another thing to use the *aspirator*. Parry's fatal cases all followed (so far as he remembered) the use of the trocar; and he (Dr. Routh) had, in the last Paper he had read before the Society on extra-uterine foetation, proved how dangerous the trocar was in such cases, as admitting air, which the aspirator never did. In order to illustrate further his meaning, years ago he had statistically shown that the mortality from tapping cases at the Samaritan Hospital, of ovarian and other dropsies, was at the rate of four per cent. in one year: actually heavier than that of ovariectomy.

In further reply to Dr. Williams, he stated that he had safely emptied one sac in the case he had related; but the patient died because he was not allowed by the consulting medical officers to empty the second, as he wished.

OBSTETRICAL SOCIETY OF EDINBURGH.

*Meeting, Wednesday, January 14, 1880.*Dr. DAVID WILSON, *President, in the Chair.*

Dr. HART showed for Dr. M'Watt, Royal Infirmary, Glasgow, a specimen of the entire Mucous Membrane of the Female Bladder, which had sloughed off. The following is Dr. M'Watt's account of the case:—

Mrs. Roy, aged thirty-five, came to me, December 22nd, complaining of the constant dribbling away of highly offensive urine, and of severe headache. On examining patient I found the abdomen enlarged, presenting the appearance similar to a woman eight months pregnant. Patient stated that she was in good health till a fortnight ago, when the dribbling away of urine commenced. She at this time also noticed her abdomen a little swollen, and it became gradually enlarged until the time I saw her. On introducing a catheter into the bladder I drew off 82 oz. of very offensive ammoniacal urine, the withdrawing of which caused the enlargement to disappear. On microscopic examination the urine was found to contain numerous triple phosphates.

Treatment.—Bladder washed out twice daily with weak carbolic.

Progress.—1st January.—Patient much improved; the pulse now 94, as compared with 120 on admission. Still passes urine involuntarily.

3rd January.—Great pain complained of in region of bladder; passed a piece of membrane 2×2 . This considerably relieved the pain.

8th January.—Bladder much distended with fluid, which could not be drawn off with a catheter. In the evening, after having suffered during the day very severe pains of a bearing-down character, patient passed the membrane now shown. After passing it the urine came away very freely, thus proving that the membrane must have occluded the entrance into the urethra.

12th January.—Patient doing well, pulse 90, temp. 99° . Urine free from smell, although passed involuntarily.

Remarks.—Probably the case was one of paralysis of the bladder due to over-distension. The preparation seems to be the hyperthrophied mucous membrane of the bladder. It measures $9'' \times 6''$.

Adding this to the piece passed two days previously, viz. 2" $\times$ 2", the membrane would cover an area of 11" $\times$ 8".

On a Labour Obstructed from an Unusual Cause.

By WILLIAM L. REID, M.D.

MR. PRESIDENT AND GENTLEMEN,—I beg to submit the details of the following case for your consideration, not because there is anything very wonderful or striking in its nature, but because the diagnosis was so obscure as to puzzle four, perhaps not very acute, medical practitioners, of whom I was one.

To avoid the possibility of hurting any one's feelings in connexion with the matter, I trust you will allow me to mention these brethren simply as Dr. A., Dr. B., and Dr. C., and the patient as Mrs. D.

Perhaps I ought to apologize for the form in which I intend to put the case. It will not be as it presents itself to my mind now, but as it did during its various stages. In this way I hope your interest in it will be better sustained; and it has always seemed to me that if the experience of older men were more frequently given in this fashion, we younger men, who, of course, cannot always be actual onlookers, would benefit much more thereby.

At 10 P.M. on Saturday, the 22nd November last, I was asked to see Mrs. D. on account of supposed obstruction to the progress of her labour. On my arrival I found that the patient was a spare woman of forty years of age, who had been married for nineteen years, and confined of five children naturally, the youngest born two and a half years before. The history of her case, as I got it at the time, was as follows:—Five months, as she thought, after becoming pregnant, she suddenly took what she called an attack of inflammation, and imagined she was going to have a miscarriage. She had pain in the region of the true pelvis, and could not pass her water except when standing straight up. When she sat down none would pass. After a few days of great pain, during which she was confined to bed, a tumour which had appeared at the vulva early in the attack suddenly burst and discharged about a pint of yellow matter. This gave her great relief, but from that time till labour came on she had to wear a T-bandage in order to keep up a tumour which

appeared outside the vulva whenever she had been a little while on her feet, and which gave her a painful feeling of bearing-down. This she did by the advice of Dr. A., who attended her during the attack. On the morning of Friday, the 21st November, she took labour pains, which continued at short intervals during the day, the pains not being severe. She walked up and down the room all the succeeding night, the pains becoming gradually stronger. On the Saturday morning Dr. A. was sent for. He examined her repeatedly, said he thought she would be a long time ill, and advised that a medical man in the immediate neighbourhood should be asked to take charge of her. This was done, and Dr. B. came and waited with her for some time; but as he had an important engagement in the afternoon, he suggested that Dr. C. should be called. When the latter arrived the patient was handed over to him with full powers. After lengthened and frequently repeated examinations he failed to detect any os uteri. I ought perhaps to mention that Dr. C. is an intelligent and careful practitioner. Thinking that the woman was getting into a dangerous condition, he advised the husband to ask me in consultation, which was done. I found her to all appearance very ill. Her pulse was 130, and her skin hot and dry. There were dark circles round her eyes, and she tossed about the bed in a restless, half-delirious manner. Her abdomen looked like that of a woman near her full time, with a tumour in the hypogastric region which seemed to be the distended bladder. There was another tumour in the left ilio-lumbar region, which I took to be the child's head. A very thorough examination by palpation was not made, owing to the presence of considerable abdominal tenderness. Careful auscultation failed to detect the foetal heart. She had been passing a little urine every now and then during the course of the day. The pains came on once in every quarter of an hour, and were feeble.

On vaginal examination I found a tumour about the size of a child's head filling that canal, and projecting from between the vulva when the uterus contracted. It was moderately firm in consistence, and somewhat elastic on pressure. I examined its surface carefully without meeting anything but smooth mucous membrane. The vaginal mucus was scanty and offensive in character. I explored the whole vagina, before and behind the tumour as well as over its surface, and was met at every point by plain tissue; not even a scar could be detected. As this proceeding had

been repeated very frequently, if not also vigorously, during the day, the vagina had become very tender, and we determined to put the woman under the influence of chloroform. Before doing so a gum elastic catheter was passed, and about 12 oz. of urine withdrawn, when the small tumour in the hypogastric region was found to have disappeared. After she became unconscious another examination was made without any greater success. I sat down to consider what was to be done in the circumstances. It struck me that as the woman seemed to be sinking rapidly, and that delivery by some means or other was urgently called for, the most prudent plan would be to open cautiously through the thinnest part of the tumour as far forward as to be pretty sure of avoiding the peritoneum. If it turned out to be the uterine wall, I judged that we must open near the os; if a tumour not uterine, and containing fluid, it would still be good practice. While this was passing through my mind it occurred to me to try exploration with my left instead of my right hand, and just as it was being withdrawn after a lengthened examination, with the finger directed toward the pubis, I felt a slight irregularity behind the pubic bone. Into this, with the use of a little force, I pressed my forefinger, and felt that it was within the cavity of the uterus. The right forefinger having been introduced instead of the left, I pushed it upwards and backwards, when I felt what turned out to be an elbow, and then the finger was arrested by the promontory of the sacrum. I was now certain that the tumour in the vagina was part of the uterus, and that it was probably filled with a large clot of blood from accidental hæmorrhage, which had not made its way as far as the vagina. I pulled down the os uteri and gradually dilated it, introducing one finger after another till my whole hand passed. The membranes were then ruptured, and I felt that the cord ran down into the vaginal part of the uterus, and on pushing the tumour up from below it turned out to be the placenta. To sum up the rest in a few words, I may just say that a leg was seized and brought down, and the breech and other leg were used to slowly dilate the os; and after bringing down both arms and pushing the vaginal tumour well up, the head passed without any special difficulty.

We had some trouble with the child before it breathed, it being weak and badly nourished. It only lived for five or six hours. The placenta was removed by expression after a drachm of ergot had been given. There was little more than the usual

amount of discharge, and the patient made a good although somewhat tedious recovery.

The following particulars of the history of the case were subsequently obtained :—After she weaned her last child menstruation was a little irregular and less frequent than usual, till she again became pregnant. She continued in ordinary health till the occurrence of the inflammatory attack, which came on suddenly and without any obvious cause. Dr. A., who attended her, told me that he thought it was a pelvic abscess pointing in the vagina from which she had suffered, and that when he saw her on the morning after her labour came on he thought the tumour in the vagina contained pus, and that as the head came down the pressure would cause the abscess to burst. He said that he could not discover any trace of the os uteri. On inquiry I found that from this attack onwards a tumour presented itself constantly at the vulva, and had to be kept in by the T-bandage. Dr. A. had no clear idea of what this tumour was.

Dr. C. told me that he had seen Dr. B., who said that after careful examination he could not find the os uteri, and he did not know what to make of the case.

On the 8th of January of this year I visited and examined Mrs. D. She had been out for a walk in the afternoon, and felt a little tired, but was otherwise well. She had no feeling of pain or bearing-down on walking. A vaginal examination showed that involution had gone on in an ordinary way, the uterus being perhaps a trifle heavier than one would have expected. It was freely moveable in the pelvis, and there was no trace of scar or hardened tissue in the vagina or neighbourhood of the os and cervix. The organ was lower in the pelvis than usual, and in position somewhat like that of a certain stage of procidentia—viz., with the os looking too much forwards and the fundus lying too much backwards. On pressing back the cervix the fundus rose into its natural position.

Such are the details of a case which to me was both puzzling and instructive. The only theoretical remarks I will venture to make are these :—There had been no pelvic difficulty before the formation of the abscess. Even after it, until delivery, a tumour existed so low down as to present itself at the vulva. This tumour turned out to be uterine, so that the probability is that the uterus was forced out of its natural relation to other parts in the pelvis by the accumulation of pus, and prolapse

of its posterior wall took place on the sudden emptying of the abscess.

Or, if retroversion had already existed with the placenta in the posterior and lower part of the uterus, and the foetus so placed as by its growth to carry the upper part above the brim, then the bursting of the abscess would simply aggravate that condition so far as to cause the lower uterine portion to appear externally.

As to the labour itself, I am of opinion that the os uteri did not dilate, because when a uterine contraction took place the fold which overlaid the os pressed it against the pubis, and so the amniotic fluid could not gain effectual access to it.

In this country, at least in towns, we do not often see how cases of difficult labour end when left entirely to Nature. I do not know whether the one of which we have been speaking would have terminated well or ill ; but so far as we could judge from the result of long-continued uterine action, it seemed probable that death rather than delivery would close the scene.

Dr. WILSON thought the Society indebted to Dr. Reid for his interesting case. It was certainly desirable that all such cases should be recorded, if only for the instruction of their younger members. The case was probably one of modified retroversion of the gravid uterus at full time.

Dr. J. H. CROOM felt indebted to Dr. Reid for his lucid account of such a very interesting case. He thought the explanation Dr. Reid advanced was the right one—viz., an inflammatory attack in the early months of pregnancy, binding down the uterus posteriorly. The case was thus like those described by Oldham as partial retroversion at full term. Dr. Reid's case differed, however, in that the placenta was prævia, occupying the pelvic segment of the uterus, whereas in Oldham's the head lay there. The difficulty in diagnosis was very great, and Dr. Reid deserved great credit for his accuracy in this, as well as success in treatment. He had not, however, the slightest sympathy with Drs. A. and B., who left the patient without finding the os uteri.

Dr. KEILLER mentioned a case sent him by Dr A. Key, of Montrose, where the patient had suffered from a pelvic abscess, which discharged an enormous amount of pus. Her subsequent history was that something had gradually protruded from the vaginal orifice. On examination, neither Dr. Keiller nor Sir James Simpson could make out what it was. Potassa fusa, applied on

Simpson's recommendation, had no appreciable effect in reducing its bulk. Ultimately he ligatured the mass, and thus removed it. Even then it was difficult to say what had been removed. The patient died some time after, and on post-mortem it was found that vaginal wall and areolar tissue had been taken away, and that the uterus was in situ.

Dr. NAPIER mentioned a case where a very large quantity of pus was passed by a woman three or four months pregnant. She ultimately died from septic poisoning. He wished to know Dr. Keiller's experience as to the amount of pus in such cases.

Dr. KEILLER mentioned a case where he opened an abscess for Sir James Simpson, where the amount of pus was very great.

Dr. W. L. REID thanked the Fellows for their kind reception of his paper. He would have liked some remarks on his explanation of the non-dilatation of the os uteri.

Dr. KEILLER mentioned a case of ovarian tumour complicating pregnancy, where the os uteri was still undilated, although labour had been going on for some time.

On Intra-uterine Puerperal Coagula.

By J. MATTHEWS DUNCAN, M.D.

Puerperal coagula differ from menstrual coagula essentially in the time of their occurrence. Menstrual coagula may occur at any time during the child-bearing period of life, remote from childbirth or abortion. Puerperal coagula occur only in the period called that of the puerperal state, which is easily limited on one side by the childbirth or abortion, uncertainly limited on the other side. This other limit is the period of the return of the uterus to its healthy unimpregnated condition, and into a nice discussion of it I do not enter, satisfying myself by allowing an interval of six weeks from childbirth or abortion to elapse before the puerperal state is probably quite passed.

The peculiarities of puerperal coagula which I propose to illustrate are their size, the liability of the uterus to increase in capacity as if with a view to contain them, the liability to hæmorrhage while they remain in utero, and the liability of the clot to form and maintain connexion with the uterus and become a polypus.

It is evident from even a superficial study or a small experience

that the liability to dilatation of the uterus increases with the nearness of the bleeding or formation of the clot to the childbirth or abortion; and that the danger is greater in a like proportion.

On the soft and often adherent clots and the rapid dilatations of post-partum hæmorrhage this is not the place to enter. That serious and too familiar accident is limited to a period comprised by, at most, the few hours immediately following delivery or abortion. When bleeding occurs later, it is generally called secondary hæmorrhage. Although this distinction is more or less formally and precisely made, it is justified almost exclusively by the rarity and less danger of the secondary hæmorrhage as contrasted with the frequency and greater peril of ordinary post-partum flooding. There is no essential distinction between primary and secondary hæmorrhage, so far as I know. There is no time in the puerperal state when a woman is safe from perilous hæmorrhage. There is no time in the puerperal state when a woman is safe from expansion or dilatation of the uterus and its attendant dangers. The subjects of puerperal clots and hæmorrhage in the puerperal state, although different, are so german to one another as to justify the introduction of these remarks on what is called secondary hæmorrhage.

Primary intra-uterine clots of childbirth or abortion are frequently retained for a few days, become firm from draining off of serum, and are then expelled with slight or severe after-pains. Such clots are generally so soft and broken as to retain little of the shape of the uterus. All this requires no proof; it is an occurrence familiar to the practitioner, and were proof required it could be easily produced. In passing, reference may be made to John Ramsbotham's* chapter on relaxation of the uterus after delivery, and its subsequent enlargement.

In describing puerperal coagula, I shall divide them into two kinds—first, those discharged from uteri which have not been dilated to an extraordinary size in order to accommodate them; second, those in which the uteri have become dilated just as they become dilated after contraction in post-partum hæmorrhage.

The puerperal coagula which form and are retained in the puerperal uterus not specially dilated vary in size according to the time at which they are formed, being larger, of course, the nearer in time to the childbirth or abortion. Hæmorrhage may occur while

* "Practical Observations in Midwifery," second edition, 1842.

they are retained, without displacing them.* They may be discharged entire, or they may break down and pass as brownish débris in lochial fluid.

“A not uncommon cause of secondary uterine hæmorrhage,” says M’Clintock,† “is the retention of a coagulum, or of a portion of the placenta or membranes. A coagulum of any size is not apt to be found in the womb beyond the first few hours after delivery, as a very moderate degree of uterine action would be sufficient to expel it or prevent its formation. Should it occur, however,—and experience abundantly proves that it may,—there will be a constant risk of hæmorrhage so long as the clot remains in utero. No doubt, the hæmorrhage in these cases is apt to go on continuously after the expulsion of the placenta, even with a tolerably firm contraction of the uterus, as Dr. Ramsbotham has well shown. But on other occasions there is an intermission in the hæmorrhage, and it may not come on for hours or days after delivery. Thus, a woman had frequently recurring attacks of hæmorrhage during the ten days following delivery, until at length the loss becoming dangerous and her strength much reduced, ‘the hand was passed into the vagina, and the fingers introduced into the uterus, by which means some coagula were removed and the discharge ceased’ (Collins).”

Of the formation and long retention of a large clot the following case is an example :—

Mrs. Y. H., a young recently married lady was confined of twins at the end of the seventh month of pregnancy. Both children soon died. There was a considerable and rather long-continued hæmorrhage post-partum, and the uterus was not brought, even at last, to firm, cricket-ball-like hardness of contraction. Her recovery was on the whole satisfactory, but the lochial discharge persisted of red tint. On the 19th, 20th, and 21st days of lying-in there was considerable secondary hæmorrhage, treated by ergot. On the 21st the discharge was chiefly red serum. During these days the uterus was felt to be bulky, but its size was not specially noted. The cervix uteri was patulous, but not open or dilated. On the 22nd day after delivery a large clot came away. It had the shape of the uterine cavity, being rounded in all its outlines, and it measured three inches in greatest breadth, and three and a half inches in length from the part cor-

* “Practical Observations in Midwifery,” second edition, 1842.

† “Clinical Memoirs on Diseases of Women,” p. 334.

responding to the internal os uteri. Below this part the clot was soft and broken. It had points indicating the position of the opening of the Fallopian tubes. Over the whole surface of its lower parts it was partially decolorized in the fretted style well depicted by M'Clintock; and on its upper part corresponding to the fundus the decolorized layer was dense and covering the whole surface. In the fundus of the clot a lacerated aperture was observed which easily admitted the finger, and which was presently accounted for. The bleeding was nearly, but not completely, arrested on the discharge of the clot. Five days afterwards, on re-examination, I discovered a fibrinous polypus and removed it. It had firm adhesion high up in the uterus. Its structure was of the ordinary kind, decolorized on the surface. It was of the size of a chestnut, and had chorionic structures in its pedicle. There could now be no doubt that the hæmorrhage flowed around the old clot, which was probably nearly as old as the polypus. It was not so old, for it had been formed around the polypus, and its displacement from the polypus which it surrounded left the lacerated opening in the clot which was observed at the time of the discharge of the latter, but was then thought to be accidental.

In his memoir* on polypus of the uterus, Dr. M'Clintock relates a case. "In proof," says he, "that a coagulum may be formed in the uterine cavity soon after parturition, and be retained there for a considerable time before being discharged, I may mention the following case which fell under my notice last spring, when temporarily in charge of the Lying-in Hospital for Mr. Denham. Dr. J. R. Kirkpatrick was good enough to furnish me with the particulars, of which the following outline will suffice:—A young woman was delivered naturally of her first child February 19. Twenty-four days afterwards there passed from the vagina, without pain or any considerable bloody discharge, a very dense, firm coagulum representing an exact mould or cast, even to the Fallopian orifices, of the uterine cavity. . . . Externally it had a mottled, dark-red and black colour, and towards the centre it was of a lighter shade of red, and not quite so compact in structure. It presented no sign of decomposition. She had not shown any uterine symptoms from the time of delivery."

In the two cases just given, the intra-uterine puerperal clots were old and partially decolorized, not putrid. A case is referred to by

* "Clinical Memoirs on Diseases of Women," p. 191.

M'Clintock,* as narrated by Lachapelle,† which, although not quite satisfactory in its details, seems to show that such clots may, instead of growing hard and decolorized, become putrid. "Another interesting remark," says Lachapelle, "which this observation may furnish us, is the return of the hæmorrhage at so late a period, without our being able to attribute it to any other cause than the presence of two somewhat voluminous clots, whose fetidity proved their age." The patient had been delivered, at the full time, of twins. The labour was tedious. The membranes were ruptured after about twenty hours of pains, and the first child was soon born. The second soon followed, and then a bilobed placenta. Severe hæmorrhage followed and continued for five hours, uterine inertia being at last dispelled by injections of cold water. The woman did well till the eighth day, when she got up, and then a little blood flowed. Hæmorrhage continued, although the woman was put to bed, till two fetid clots were discharged. The woman was taken with shiverings, vomiting, fever, &c., and died the following day.

In cases of ordinary secondary hæmorrhage it is not rare to find the uterus relaxed and full of soft clots; and it is often recommended, and practised, to remove these clots, in order to facilitate or secure uterine contraction and retraction. Examples of this are not rare in practice. Sometimes such cases are fatal, and then the clots, often adherent, may be observed in autopsy. Cases are related by Collins, Ingleby, Ashwell, M'Clintock, and several references may be found in my paper on the introduction of the carbolized hand into the uterus at long periods after delivery.‡ All such cases are regarded justly as rather cases of hæmorrhage than of clots, just as in the analogous post-partum hæmorrhage.

There is another class of cases of great importance, mention of which cannot be omitted, where, in consequence of the retention in utero of some adherent ovuline structure, the involution of the uterus is retarded in a remarkable degree, or completely arrested, till the adherent mass is removed, and then involution again makes progress. Of such occurrences I have recently seen several striking examples, where the still retained mass was very small, not bigger than a small hazel-nut, yet where involution was

* "Clinical Memoirs on Diseases of Women," p. 334.

† "Pratique des Accouchemens," tom. ii. p. 474.

‡ "British Medical Journal," Oct. 27, 1877, p. 583.

arrested for weeks or months, and when hæmorrhage had proved almost fatal. In such I have removed firm, old, but not decolorized clots. Such clots do not interfere with the hæmorrhage, seeming, indeed, to encourage it; and they are often discharged with more or less pain, new ones being formed in the place of the former. I shall not relate the particulars of any such case, but only refer to one which I published lately.*

I cannot advance to the subject of fibrinous polypus without making special remarks on a case of M'Clintock's † which he, indeed, calls a fibrinous polypus, but which cannot be regarded as truly such. For he describes the tumour as "not seeming to have any attachment to the uterus, but simply retained by the constriction of the os." The case, then, is very rare, if not unique, and deserves quotation at length, being an unattached decolorized puerperal clot resembling a fibrinous polypus, except that it was unattached and contained no ovuline structure. It is right to note M'Clintock's tone of caution, which justifies the remark that the case is not quite conclusive as it stands. "A married woman, aged thirty-five years, applied at the Lying-in Hospital Dispensary, in the month of September, 1861, on account of frequently recurring bloody discharges from the vagina. These had been going on for three months, but were at no time very profuse in quantity. On making an internal examination I found the os uteri open, and a soft fleshy substance, which had all the feel of an ovum, protruding from it. With the aid of a volsellum I drew it away. This was effected without the use of force, the tumour not seeming to have any attachment to the uterus, but simply retained by the constriction of the os. The body so removed was totally devoid of fœtor, and was about the size of a large hen egg, but more elongated, and pointed at the ends. It was tolerably firm, but could be cut with a blunt instrument such as a spatula. Its exterior was of a reddish-yellow colour, and within it was apparently composed of coagulated blood. It contained no vestige of a distinct membrane, nor any structure properly belonging to the ovum. This woman had had an abortion or a premature labour (I forget which) about four months previously."

Into the whole subject of true fibrinous polypus I do not propose to enter. Many such cases have come under my observation. They all occurred in connection with recent pregnancy, and were

* "Clinical Lectures delivered in St. Bartholomew's Hospital," 1879, p. 3.

† "Clinical Memoirs on Diseases of Women," p. 190.

the cause of continued loss of blood, sometimes copious, sometimes inconsiderable. They were all easily cured by removal of the polypus. In all there were ovuline structures in the pedicle or near the attachment of the mass. In most the shape was polypus-like, and the body of the polypus lay in the dilated cervix uteri. In one, already related in this paper, the polypus was within the body of the uterus. In one case the polypus had not the shape of a pear, but was largest at its broad insertion, smallest at its intra-cervical portion; it followed an abortion, and was recent, being scarcely decolorized on its external surface.

In his original writing* on fibrinous polypus, Kiwisch, as is well known, thought it probable that the uterus was relaxed, and enlarged or dilated, in order to contain it. His view has been generally rejected, and it is to be remembered that he was writing the first lines penned on the subject, and in ignorance that such polypi was observed only in women who had recently been pregnant. Dilatation of the uterus will be admitted to be easier, and therefore more probable, in a uterus which has recently been pregnant than one not in the puerperal or lately emptied condition; and I know no good reason for positively denying that such dilatation of the cavity of the body of the uterus ever takes place.

But it is important to remark that we have no clinical evidence that, in order to contain a fibrinous polypus, the cavity of the body of the uterus undergoes special dilatation. It is, indeed, in consequence of its recent repletion in pregnancy, already in a dilated condition. The structure of such polypi and their history show that they are generally, if not invariably, formed of one attached clot, which shrinks and hardens as it undergoes decolorization, and is generally expelled from the cavity of the uterus proper and lodged in that of the cervix, so far as its body is concerned, while its stalk in the proper uterine cavity maintains the connection of the body of the polypus with its attachment.

I come now to consider the second class of cases, in which the proper uterine cavity is enlarged or dilated, and that probably very rapidly, in order to contain and retain the puerperal clots.

Rapid enlargement of the uterine cavity is well known as a not rare occurrence soon after parturition. This enlargement is too rapid for growth of tissue to have any part in its production.

* "*Klinische Vorträge*," 1851, Abtheilung I., S. 472.

Growth of tissue goes on in regulated concurrence with the expansion of pregnancy ; and even in morbidly rapid or extreme expansions there is at least time for growth of tissue to aid in the expansion. Of extreme expansion, often with thinness of wall, examples are found in the hydramnios of advanced pregnancy, and in some cases of uterine hydatids, where it may occur to a marvellous degree either in early or late periods of the gravid condition. But of such expansion as we here consider better illustrations are found in the (too few) post-mortem experiments of Glenard, and in the cases of introduction of the hand into the uterus at long periods after delivery.*

Ingleby† mentions that a case "in which so late as the nineteenth day after delivery the uterus was emptied of a large quantity of putrid blood, shows its capability of distension at this remote period." In my own practice a well-observed case occurred, in which the sudden dilatation with formation of intra-uterine clots occurred on the ninth day after delivery. Mrs. S., a healthy young woman, was attended by me in 1862 in her first confinement. It was easy and natural. Eight days after her confinement, while she was making a satisfactory recovery, she was seized with faintness and a free discharge of blood. When I reached her, I found the uterus enlarged to about the size of a four months' pregnancy, its fundus rising above the pubes to fully half-way towards the navel. It was by kneading made to contract and expel large firm clots. Ergot and pressure maintained the contraction. When reduced in size, the uterus did not feel more bulky than it would be expected to be on the ninth day. It is a curious fact that this woman, delivered on December 3rd, was again delivered on September 29th of a mature, well-developed child, which came into the world a fortnight earlier than the day calculated for by the doctor in attendance. She had had within four weeks after delivery what she described as a scanty anticipatory menstrual flow.

The cases of relaxation and dilatation of the uterus in the puerperal state, when there has been no retention of ovuline structures, which have come within my observation or reading, have been cases of hæmorrhage rather than of puerperal clots. In Ingleby's case, where the clots were fetid, there is evidence

* See *British Medical Journal*, Oct. 27, 1877, p. 583.

† "On Uterine Hæmorrhage," p. 248.

of retention of clot for a considerable time ; but I know no case where the decolorization of the clot indicated length of retention in utero. But there is no apparent reason why such an occurrence may not take place ; and M'Clintock's case of so-called fibrinous polypus is the nearest approach to its realization. It would, indeed, be a case in point were there any evidence that the uterus had been expanded to contain the decolorized clot which he removed.

Dr. KEILLER thought the Society indebted to Dr. Duncan for his paper. It proved to them that he still retained the hard-headedness and power of work he had so often shown in Edinburgh. The paper itself was on an important subject. Cases such as Dr. Duncan narrated were pretty frequent, but post-mortem examinations were rare. He had frequently inspected the uterus post-mortem, and found small clots. These he considered more dangerous than large ones, as the uterus could not contract on them sufficiently so as to expel them. When large their presence caused grave symptoms, quickly cleared up by their expulsion. He remembered one case of hæmorrhage a fortnight after delivery, where he introduced his hand into the vagina and dilated the os with his fingers. He did not like the curette in such cases. Dr. Duncan had published a case where, some time after delivery, he had introduced his carbolized hand into the uterus and removed a clot. It was difficult to see, however, how this was done. The cases were interesting, and the paper instructive.

Dr. CROOM pointed out that of the three sets of coagula the first kind were avoided by the use of ergotine at the completion of the second stage of labour. He had found practically that when ergotine was given they had no clots ; when not given, clots had formed. He was of opinion that placenta, as described by Dr. Duncan, must be extremely rare.

Obstetric Summary.

Cæsarian Section with Extirpation of the Uterus (Porro's Method).
—Dr. Pawlik remarks that this operation has received wide appreciation. It has now been performed thirty-six times. In five of these the operation was performed under conditions which made recovery *à priori* hopeless : but of the remaining thirty-one,

eighteen recovered. He describes three cases. The operations were performed under thymol spray, the abdomen and the genitals being first carefully washed with carbolic solution. The abdominal incision was made in the linea alba, beginning two centimeters above the pubes, passing to the left of the umbilicus, and ending four or five centimeters above it. The bleeding from the incision having been carefully arrested, and cloths soaked in thymol solutions put to the cut surfaces, the uterus, now visible in the line of incision, was opened, and the foetus extracted by the feet, the abdominal walls being meanwhile carefully pressed by assistants against the uterus, and the upper angle of the wound held open by the fingers. The effect of the traction on the foetus and the lateral pressure on the abdominal walls, was to make the quickly contracting uterus slip out through the abdominal incision. It was seized by the finger and thumb applied to the cervix, and then the placenta expressed. By assistants the margins of the abdominal incision were so pressed together behind the uterus, that no intestine slipped out. Then an apparatus for exerting compression (the "Péan-Billroth écraseur") was passed round the inner os uteri and tightened. The uterus was then cut off with a rapid stroke of the knife, about two centimeters above the noose, and, if any oozing took place, the constriction was tightened. Douglas's pouch and the vesico-uterine fold were carefully sponged out: and a sponge was kept in the abdominal cavity during the introduction of the sutures. These were inserted at intervals of about two centimeters, and were made to include the peritoneum: and drainage tubes were put in, behind and in front of the uterus. The stump was transfixed above the noose by a strong needle; and superfluous tissue was trimmed off. It was then surrounded with carbolized gauze, to prevent any fluid passing along it into the abdominal cavity. The wound was dressed with carbolized gauze, the whole abdomen covered with spermaceti gauze, and surrounded with eight folds of spermaceti gauze and a layer of mackintosh. Every crevice in the dressing was stopped with salicyl-jute. In applying the bandage, pressure was throughout made on the abdomen, to force out through the drainage tubes any fluid that might be present in the peritoneal cavity. Some hours after the operation, the dressings were examined, and if soaked through were removed. The first patient was aged twenty-five, and was rickety. The diagonal conjugate measured eight centimeters, the true conjugate six centimeters (two inches). The patient had reached term,

and had the signs of being in labour (membranes had ruptured, and os uteri was beginning to dilate), although she said she had no pains. There was some difficulty in extracting the head. The placenta was not separated, uterus and placenta being removed together. The dressings were changed daily. There was never any great pyrexia, and none after the fourth day. The superficial sutures were removed on the sixth day, the deep on the seventh. The anterior drainage tube was removed on the tenth day, the posterior on the fourteenth. The stump fell on the thirteenth day. The patient left her bed at the end of a month. The child lived. The second patient was aged twenty-six, and was a dwarf, congenitally deformed and rachitic. The pelvis appeared to be symmetrical, the true conjugate measuring only 4.7 centimeters, and the greatest transverse diameter 11 centimeters. The operation was performed eight-and-a-half hours after the commencement of labour pains, which were regular. The patient died from peritonitis on the fourth day. The child survived. The third patient was twenty-three, and was rickety. The conjugate diameter measured about five centimeters. The pregnancy had reached term. Slight and infrequent labour pains were present, and the os uteri was big enough to admit the finger, when the operation was performed. The patient recovered so far as the operation was concerned, but her convalescence was protracted, first by peritonitis, with constipation and vomiting, rendering her incapable of taking food, and necessitating artificial feeding; then by the great debility resulting from this, which seemed to render death from inanition probable; and then by "subacute primary dementia," due to anæmia, and this latter condition persisted. The child survived. The coprostasis was believed to be the cause of the peritonitis, and the author especially calls attention to the great relief which followed the administration of purgatives. Dr. Pawlik criticizes the arguments in favour of the method of operating recommended by Müller, of Bern, the essential feature of which is the getting the uterus out of the abdomen intact, removing it and opening it after having first carefully closed the abdominal cavity. In this way the escape into the abdomen of liquor amnii is avoided, and that of blood is reduced to a minimum. Experience has shown that the intact pregnant uterus may be brought through an incision from fourteen to eighteen centimeters long. It is, however, much more difficult to get out the uterus than might be thought. In the three cases now recorded, and in another previous one, it was

intended to perform the operation according to the method of Müller, and the incision was therefore made longer than would otherwise have been needful ; but the efforts of the operator and his assistants failed to get the uterus outside. In such cases this method involves loss of time, undue violence to the peritoneum, and therefore greater risk, and the dangers it avoids are imaginary, for in none of these cases was there any fluid in the abdomen when the wound was closed. Although this mode may be practicable in some cases, yet upon the whole the author looks upon it as an unnecessary complication, and addition to the risk, of Porro's operation. Another objection is, that the hurry which is necessary in ligaturing the uterus, in order to quickly extract and so save the life of the child, prevents proper care in the adjustment of the ligature. This, however, can be avoided by applying a provisional ligature, the best material for which is india-rubber. The puerperal uterus and vagina behave very differently under the ligature, from the normal vagina and the resistant cervical tissue of the non-pregnant uterus.—(*Wiener Medizinische Wochenschrift*, Nos. 10, 13, 16, and 17, 1880.)

Porro's Operation.—At a recent meeting of the French Académie de Médecine, M. J. Lucas-Championnière exhibited two patients, upon whom he had successfully performed this operation—viz., Cæsarian section, followed by removal of the uterus and ovaries. He mentioned that he had performed this operation four times, in every case saving the child, and in two of them the mother. The patients were all rachitic, having pelves measuring in the conjugate diameter six centimeters or less. The operations were all performed with antiseptic precautions. He gave details of the successful cases, and briefly mentioned the unsuccessful ones. He remarked that he did not think that this operation ought in every case to take the place of the Cæsarian section. Death, as in hysterotomy, was due to causes inseparable from the removal of the uterus, and the constriction of its neck ; the accidents observed in connection with it were probably due to disturbance of the nervous plexus in the broad ligament. Consequently, unless great modifications can be made in it, the operation remains one of great gravity. He thinks it better to carry the abdominal incision much higher than has been done hitherto, because then there is greater certainty of being able to carry out thoroughly the antiseptic dressing than if the incision is near the pubis. The uterus is always incised too low ; the operation

would probably be less serious if only a portion of the organ, of moderate extent, were removed. The most perfect antiseptic precautions ought to be taken. It is better for the mother to interfere before labour has commenced.—(*Le Progrès Médical*, No. 11, March 13, 1880.)

Laceration of the Cervix Uteri as a Cause of Post-partum Hæmorrhage.—A case of this kind is narrated by Dr. A. De la Roche. The patient was a primipara, aged twenty. The first stage of labour went on well, but in the second pains became feeble, and progress was arrested; therefore, sixteen hours after the beginning of labour, the forceps was applied, and delivery easily effected. Very little hæmorrhage followed, and a quarter of an hour afterwards the placenta was delivered without trouble. Immediately this was done blood began to escape in abundance, but the uterus remained quite hard. The abdominal aorta was compressed and ergot given. At the end of twenty minutes compression was left off, and the hæmorrhage recommenced, the patient falling into a state of syncope. The hand was then introduced, that the uterus might be compressed, and thus the existence of the cervical rent was discovered. The abdominal aorta was again compressed, and ice applied internally; but hæmorrhage continued to recur at intervals, and it was two and a half hours before it was finally stopped. The slightness of the hæmorrhage before the placenta was delivered, the author explains by supposing that the uterine contraction which expelled the placenta, also squeezed out clots which, until then, had kept the hæmorrhage in abeyance.—(*Lyon Médical*, No. 11, March 14, 1880.)

Concealed Accidental ("intra partum") Hæmorrhage.—A case of this complication was narrated to the New York Obstetrical Society by Dr. W. T. Lusk, the President. He had treated it by artificial dilatation of the cervix, and subsequent delivery with forceps. He said that he thought he should pursue the same course in another similar case, because although good uterine contractions might follow earlier rupture of the membranes, before the pains were established by other measures, a very great risk would be run by adopting this measure, because, in cases of internal hæmorrhage, the uterus was, as a rule, relaxed, and atony was apt to persist after rupture.—(*New York Medical Journal*, April, 1880.)

Gynaecic Summary.

On the Indications for, and the Methods of, Dilatation of the Uterus, by B. S. Schultze, Jena.—The uterus may be dilated, (1) for purposes of diagnosis; (2) to give room for the use of instruments or medications; (3) to give free passage to menstrual blood, catarrhal secretions, or semen. From incisions reaching up to the inner os uteri there is risk of bleeding, and of secondary metritis and parametritis, and dilatation by sponge tents is open to the same and even greater objections. These risks may be diminished, without diminution of the benefit following, by (1) dilating with laminaria tents preparatory to performing the high bilateral incisions; by this method the uterus can be emptied of stagnant secretions and (by washing it out with a 2 per cent. solution of carbolic acid) disinfected, by which means the risk of infection from the freshly-cut surfaces is diminished, and an incision confined to the seat of stenosis can be made. The cervical canal can, in the same manner, be efficiently opened up, after the use of laminaria, by a blunt dilator. The author gives the latter method the preference, and has constructed a dilator, working in the sagittal direction, with which he operates either in the knee-elbow or in the lateral position, using strict antiseptic precautions, and washing out the uterus. (3) In dilatation with expanding agents, antiseptic precautions should be observed before, during, and after the operation; from this point of view laminaria tents are the best. Out of more than a thousand cases the author has seen parametritis only five times, and in every one of these some neglect in the application of the antiseptic method was discovered. If during the use of laminaria the temperature rises above 38° (100.5 F.) the operation should be discontinued. The author considers that the hurtfulness of stagnant catarrhal secretions is not sufficiently appreciated.—(*Centralblatt für Gynäkologic*, No. 1, 1880.)

Myxoma Enchondromatodes Arborescens Colli Uteri.—A case, the nature of which is described by the name quoted, is narrated by Dr. Georg Rein. The patient was aged twenty-four, unmarried. Her previous health had been good. When she first came under observation she was anæmic, and had a thick greenish discharge from the vagina. This canal was dilated, and in it were felt many egg-shaped and rounded tumours of tolerably soft consistence, from

the size of a walnut downwards, having thin short stalks. They were of such consistence, and so clustered together, as to remind one at first of the so-called hydatid mole. The whole mass sprang from the anterior lip of the cervix uteri. The patient gave the history that the discharge had been present for sixteen months. Eight months after its appearance menstruation began to be unduly profuse and painful, and something was noticed to occasionally protrude from the vagina. There was also pain and difficulty in micturition. The tumour was removed by the *écraseur*. It was found to consist of two parts, which had to be removed at separate operations. One of them was about the size of a child's fist; the size of the other is not stated. Three months after the operation, papillary growths were seen sprouting from the posterior lip of the cervix. These rapidly grew, and soon formed a tumour as big as that present before operation. The old symptoms also returned, and in addition there was tenderness in the left side of the hypogastric region, deep down in which an ill-defined tumour could be felt, and in the vaginal tumour nodules of a cartilaginous hardness could be felt. Six months after the beginning of the growth the tumour filled the whole left hypogastrium. An attempt was then made to remove the mass. The whole *portio vaginalis*, with the tumour attached, was cut off with the *écraseur*, but in doing so the left vaginal cul de sac was unfortunately opened, and thus a hole made into which the finger could be put, and made to enter a cavity filled with masses of tumour like the one removed. Collapse followed, and the patient died early the next day. On autopsy it was found that the peritoneum had been opened. In the left broad ligament was a cavity filled with soft masses of growth like that removed *per vaginam*. Microscopically, the tumour was found to consist chiefly of myxomatous tissue. It was covered with epithelium like the normal vaginal epithelium, and at its base was separated from the healthy structures by a layer of granulation tissue. In different parts of the tumour were hard rounded nodules of varying size, which presented the characteristic histological appearances of hyaline cartilage. The author therefore classes it as a malignant new growth of a complex kind, to which the name given above is applicable. The author has not been able to find a description of any similar case. He has only found one other case in which cartilage tissue was present in a uterine tumour.—(*Archiv für Gynäkologie*, Band xv. Heft ii.)

A Hystero-curvimeter.—M. Tarnier recently presented to the French Academy of Medicine, on behalf of Dr. Terrillon, an instrument called a hystero-curvimeter. It consists of a rigid, graduated stem, with a flat handle, such as can be conveniently held. It carries a dial, which presents a certain number of divisions, and around which turns a movable needle. At the other end of the stem is fixed a flexible part, covered with a thin caoutchouc membrane. This part can be bent in either of two opposite directions, and its bending is instantaneously shown by a corresponding movement of the needle, which indicates at once the degree and the direction of the bend. Finally, a traveller, formed of a hollow rod, can be slipped along the flexible part, while a graduated scale on the principal stem shows the distance which the traveller has gone—that is to say, the length of the flexible stem which is engaged in the uterus. By a little manipulation, the traveller can be fixed at any part of its course. The instrument is intended to measure the length of the uterine cavity, and at the same time to indicate its curvature (anteflexion or retroflexion). In using the instrument the traveller is made movable, and the stem is introduced with light pressure into the uterine cavity. Owing to its flexibility, the instrument readily penetrates to the end of the cavity without causing any disturbance. If there be a flexion, the needle deviates in a manner which indicates the kind of flexion; its amount is marked by the figures on the dial: it is then noted carefully. The traveller is then fixed at the point at which it is situated when the flexible stem has reached the fundus uteri. The instrument is then withdrawn. By the scale on the stem the length of the uterine cavity can be read off. Then, the traveller remaining in position, by making the end of the stem describe such a curve that the needle arrives at the point at which it stood when the instrument was in the uterus, we have a representation of the curve of the uterine cavity. The way in which the needle moves shows the direction of the flexion, whether backward or forward, and lateral versions can be equally well shown by the instrument.—(*Bulletin Général de Thérapeutique*, Avril 30, 1880.)

A Case of Imperforate Vulva was brought before the French Société de Biologie by M. Dumontpallier. The ovaries, tubes, and uterus, although a little large, appeared externally healthy, but the cavity of the body of the uterus did not communicate with that of the neck; the internal orifice of the latter was abso-

lutely obliterated. The external orifice of the neck communicated normally with the vagina, which ended inferiorly in a cul de sac, which was back to back, so to speak, with the cul de sac formed by the vulva. To re-establish the genital canal, it would have been necessary to make two artificial orifices. The patient presented each month symptoms of pelvic peritonitis, but the uterine cavity did not contain a trace of blood.—(*Gazette Hebdomadaire de Médecine et de Chirurgie*, Mai 7, 1880.)

Imperforate Hymen.—A case is reported by Dr. Reimann. The patient was aged twenty, married nine months, and was supposed to have been three days in labour. The fundus uteri could be felt reaching above the umbilicus. The vagina was completely closed by a membrane which was attached all round to its orifice, and was immediately continuous with the nymphæ. The author particularly noted this, being aware of the view of Dohrn, that such atresia is usually situated higher up. The membrane bulged forward in a hemispherical shape, and behind it a soft mass could be felt. No trace of an opening or a cicatrix could be found. Not having any other instrument at hand, the author made a hole in the membrane with a pair of scissors, and dark treacly blood escaped. The patient was given opium, to moderate uterine contraction, and left. Three days later, sharp pains recurred, the hole had closed up, and the uterus was as large as before. A crucial incision was made, and the angular flaps cut away. The patient has since then menstruated regularly. The thickness and firmness of the membrane cut away far exceeded that usual in the hymen.—(*Centralblatt für Gynäkologie*, Nr. 8, 1880.)

On Chancrous Folliculitis of the Vulva, or Follicular Soft Chancre.—A Paper on the above subject, by MM. Gouguenheim and Bruneau, based on observations made at the Lourcine, was read before the Société Médicale des Hôpitaux. The following are the authors' conclusions:—1. Chancrous folliculitis, or follicular soft chancre, occupies most often the external surface of the labia majora. 2. It presents a special (*boutonneux*) character, which has led to its being frequently confounded with simple acute vulvar folliculitis. 3. The follicular condition may persist throughout the whole duration of the disease. 4. The follicular condition may disappear after some days, and the lesion assume the appearance of the ordinary chancre. 5. Simple chancres often coincides with follicular chancre. 6. Chancrous folliculitis often succeeds an ordinary chancre, but the reverse equally takes place.

7. It may exist alone, independently of any other ulceration. 8. Affection of the inguinal glands is rare. 9. Chancrous folliculitis evolves itself in the space of three or four weeks. 10. It is inoculable. 11. Inoculation, contrary to what happens almost always with the ordinary soft chancre, presents a period of incubation lasting from eight to twenty days. 12. The diagnosis of this disease, when it is not accompanied by the ordinary soft chancre, is impossible without inoculation. 13. The majority of observations of simple acute suppurative folliculitis, reproduced in books, without the criterion of inoculation, ought to be looked upon as cases of chancrous folliculitis. 14. The existence of simple acute suppurative vulvar folliculitis is then very hypothetical. 15. Secondary ulcerous folliculitis may only be a follicular soft chancre produced on syphilitic soil.—(*Gazette Hebdomadaire de Médecine et de Chirurgie*, 16 Avril, 1880.)

BOOKS, PAMPHLETS, &c. RECEIVED.

“Tracheotomy in Laryngeal Diphtheria (Membranous Croup).” By Robert William Parker, Assistant Surgeon to the East London Hospital for Children. London : David Bogue. 1880.

“Thomas Keith and Ovariectomy.” By J. Marion Sims, M.D., LL.D., of New York. (Reprint from the *American Journal of Obstetrics and Diseases of Women and Children*.)

“Ueber die Erfolge der Antisepsis auf dem Gebiete der Laparotomien.” Von Dr. Bruntzel. (Reprint from the *Breslauer ärztlichen Zeitschrift*.)

“Modern Abuse of Gynæcology.” By Clifton E. Wing, M.D., Boston.

“Remarks on Rectal Feeding in Disease.” By William Warren Potter, M.D. (Reprint from the *Medical Record*, New York.)

“Hæmorrhage from the Organs of Generation during Pregnancy and Parturition.” By Arthur V. Macan, M.B., &c. (Reprint from the *British Medical Journal*.)

Communications received from Dr. C. E. Underhill, Dr. Gervis, and Dr. H. W. Jackson.

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THE
OBSTETRICAL JOURNAL
OF
GREAT BRITAIN AND IRELAND.

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No. LXXXIX.—JULY 15, 1880.  
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Original Communications.

MEASLES IN RELATION TO PREGNANCY AND THE
PARTURIENT STATE.*

By CHARLES E. UNDERHILL, B.A., M.B., F.R.C.P.E.

DURING a recent epidemic of measles in this city, the disease broke out in the household of one of my patients. Four children were affected, and the mother, Mrs. N., was then at the end of the seventh month of pregnancy. She did not know whether she had ever had the disease in childhood ; and I was in doubt whether I should allow her to remain in the house and nurse them, or send her out of the house. She settled the question for herself by refusing to go, and was confined in due time without contracting, or being in any way influenced by, the measles. This case led me, however, to look to the experience of others, and I have embodied in the following paper such results as I have been able to obtain. That they are so meagre is due partly to the fact that not much has been written on the subject, and partly to my being obliged to take most of them at second-hand, through inability to gain access to the original Papers. It seems generally agreed that measles is one of the most infectious of all the zymotic diseases. That when it attacks a community after a long absence it affects indiscriminately almost all who are not protected by a previous attack. That neither age nor sex gives immunity from its ravages. There are not a few recorded instances of infants in the

* Read before the Edinburgh Obstetrical Society, May 26, 1880.

first weeks of life suffering from it, while at the other extreme of life, the most advanced age forms no protection against its attacks, as we find persons as old as eighty, and even older, are still liable to be infected by it.

The best evidence of this is furnished by Panum* in his well-known account of the epidemic which occurred in the Faröe Islands in 1846. There had been no case in these islands for sixty-five years, the last epidemic having occurred in 1781. Of the 7782 persons resident in these islands, upwards of 6000 were attacked, within a short space of time, those only escaping who had had the disease sixty-five years before, of whom about eighty were still living, and about 1500 others who, from the seclusion of the islands in which they had lived, were not exposed to infection. Not a single old person unprotected by a previous attack escaped, though a few of the younger individuals did. Unfortunately, he makes no mention of the special case of pregnant or parturient women,† nor does he record the mortality of the disease. It is worthy of note that Panum found the period of incubation to be invariably fourteen days from the time of exposure to infection until the first appearance of the rash. There were prodromata, however, varying in the different cases from one day to five or six days before the rash appeared. He found the disease could be carried in the clothes or persons of those who were not susceptible themselves—doctors and nurses for instance. In one instance it was so carried by himself, even after exposure for five hours in an open boat and in rough weather. The disease is, therefore, eminently infectious.

The statements made by most writers on the relation of measles to pregnancy and the puerperal state are exceedingly general and vague.

“Pregnancy,” says Thomas,‡ “is no defence against measles, and delivery may be hastened by this as by other diseases. Seidl even attributes to young pregnant women, towards the normal end of pregnancy, an increased susceptibility to measles. Abortion in connection with measles has been noticed even with a fatal result (Rösch).” I have been unable to obtain either of these papers.

* Virchow's "Archiv," vol. i., 1848.

† Nor have I been able to find any allusion to this special point in the accounts I have seen of the great epidemics of measles in the Mauritius in 1873, and in the Fiji Islands in the following year. Of course many pregnant and parturient women must have suffered with the rest, in such extensive outbreaks.

‡ Ziemssen's "Cyclopedia," vol. ii., Article, Measles.

The following statement is made in Gerhardt's "Handbook of Children's Diseases":—"In pregnancy, and especially in the puerperal state, measles is attended with very serious danger, though in a less degree than scarlet fever." But no evidence is given in support of his statement. Similarly wanting in details is the remark of Schneider in an account of an epidemic:—"Pregnant women were attacked by measles, and the majority of them aborted, not without incurring great risks during the height of the malady: many died soon after confinement, and the infants died as well." Indeed there is singularly little accurately recorded regarding this subject—nothing at all dealing with large numbers—and not nearly sufficient to enable us to form any safe judgment or draw any just conclusions on the matter. The paper containing the best and most recent information on the subject was published in the *Annales de Gynécologie* last year, by Dr. Gautier, of Geneva, and to it I am much indebted for the following particulars. He gives one case of his own and has collected ten other cases, more or less fully reported, and to these I have added seven more, two of which have been published since his paper appeared, and two appear here for the first time.

Dr. Gautier's case is in direct opposition to the general statements given above, as it terminated most satisfactorily. It is, shortly, as follows:—

Mrs. Y., aged twenty-four, at the end of the ninth month of her fourth pregnancy, was exposed to the infection of measles on the 16th of March: she had a shivering on the evening of the 27th, accompanied by a frequent and severe cough, and much coryza and conjunctival catarrh; on the 29th she was easily delivered of a female child: there was no excessive loss and no further shivering. On the morning of the 30th the rash appeared, she had then a pulse of 110, and a temperature of 103° Fah.; lochia normal. She speedily recovered, and was up at the end of a fortnight. She nursed her infant at the breast, and it showed no signs of measles or any other ailment. Her other children all suffered pretty severely, but recovered.

Though this child escaped, children at the breast, during the first days of life, are occasionally infected. Thomas gives several instances of this occurrence; and he further mentions six cases, which he has collected, after much research, in which children were born with fully developed measles, characterized by the exanthem, after the mother had shortly before been ill of the disease. And

I have mentioned a seventh instance further on. The other cases, several of which I have taken from Gautier's paper, are as follows :—

Fabricius of Hilden reports that a woman who had reached the middle of the ninth month of pregnancy was attacked by a severe fever ; shortly after, measles appeared. On the fourth day of her disease she gave birth to a child, which was covered with the rash of measles. Both were seriously ill for some days, but eventually recovered.

Ledelius saw a case in which a woman was confined towards the end of pregnancy, while suffering from an attack of measles in the eruptive stage ; the child was covered with red spots ; the mother recovered, but the result of the child is not given.

Roesler reports that a woman who fell ill of measles at the seventh month of pregnancy aborted and died.

Egbert saw a case in which a pregnant woman was attacked with measles and miscarried—at what month is not given.

Guersant reports a case where a newly-born infant contracted the disease from its mother—issue not given.

Chausit reports that a woman who had had measles in infancy, was attacked a second time during pregnancy, and was delivered the second day of the disease—the child also being affected—no issue given. This case is rendered somewhat doubtful by the fact of the previous attack.

A similar doubt is thrown on the case given by Doléris. The patient aborted at the sixth month, and second day of an eruptive fever, with a measly rash, but without cough. She had had measles in childhood. Recovery.

Hedrich reports that a woman, aged thirty-nine, was attacked by measles when near the end of her pregnancy, accompanied by moderate fever. She was delivered, on the fourth day of the disease, of a girl who was covered with spots of measles, and manifested severe catarrhal symptoms, coughing and sneezing. The mother was able to nurse her child ; and both recovered.

Kunze saw a case in which a woman was confined during the eruptive stage of measles. On the fifth day after birth the child took the disease—both died. No mention is made of the period of pregnancy reached.

Clarus (*see* Thomas) stated in the Medical Society of Leipzig, that he had observed the exanthem of measles quite plainly on a foetus, the mother of which had died during the exfoliative stage.

Thomas adduces a case in which a woman suffered from measles in the fifth month of pregnancy. She did not abort, but was confined of a healthy child at full time. This child subsequently had an attack of measles when nine years old.

Michælsen (see Thomas) records two cases of measles in new-born children. In the one which he saw himself, the child was born with the rash, the mother being also in the eruptive stage of the disease. No mention of the result in either case.

Bleynie of Limoges* relates two important cases :—A. P., aged twenty, was attacked with measles at the end of the eighth month of pregnancy. The eruption was copious, and she suffered from the outset very severely from catarrhal bronchitis. After the rash had disappeared she was delivered of a child which had been a short time dead, but showed no signs of having been affected by its mother's illness. She improved a little for the first two days, but died, on the sixth day of lying-in, of asphyxia, the result of general bronchitis.

V. D., aged twenty-six, confined at term, on March 13, of a healthy boy ; four days later she was seized with measles ; the disease went through its ordinary course without complication. From fear of the other newly delivered women being affected, this patient was transferred to a general ward, where she died on April 4 of metro-peritonitis. There were no other cases of disease at this time in the wards. The child, which was nursed by its mother during her attack of measles, was attacked by the disease twelve days after birth, and recovered.

The late Sir James Simpson reported the following case in a Paper read before this Society in 1863 :†—

Rather more than a year ago a lady died under his care very suddenly of measles, coming on shortly after delivery. The disease had appeared in one of her children more than a fortnight before the period of her confinement was due, and he had her immediately separated from her family, allowing no kind of communication to take place between the two houses. Her labour, the 13th, took place on a Wednesday, without any notable peculiarity, and she continued well until the Sunday following, when she had a tremendous rigor, succeeded by high fever and great restlessness. The next morning she perspired freely, and was somewhat better ; but another rigor occurred in the afternoon

* *Annales de Gynécologie*, vol. xii. p. 384. 1879.

† "Selected Obstetric Works," p. 519. Edinburgh, 1871.

(Monday), and the skin again became very hot, and the pulse very quick. Towards morning the brow became rough and red, and it seemed for a time as if an eruption were about to break out over the face. The pulse came down a little during the forenoon; but the rigor, having recurred on the third afternoon, the patient sank and died fifty or fifty-three hours after the first shivering fit. A post-mortem examination showed no special local lesion. It would have perhaps been impossible to say with absolute certainty that this puerpera died of an attack of measles. But at the time of her death he had no doubt as to the nature of her attack, and his opinion was confirmed when, some days later, an eruption of measles appeared on the baby, although it had been kept away from the infected household.

Squire* quoted the case of Lady Sydney from the "Sydney Papers." Lady Sydney was sickening for measles, when, on the third day, with severe cough and full rash, "she is brought to bed of a goodly fat son." The child also was full of measles mostly in the face; yet it suckled well. Both recovered.

Dr. Angus Macdonald† informs me of the following case:—Mrs. M. was in the seventh month of her third pregnancy on the 21st March, 1880, when her under-nurse was found covered with a well-marked measly rash, and affected with the usual constitutional symptoms of the disease. On the 26th, Mrs. M., by the advice of her family physician, left home for Keswick; she remained there until the 31st, when she returned. None of her children had shown any symptoms of the disease in the meantime, and she saw them on the evening of her return. On the following morning the rash appeared on some of the children, and Mrs. M. was immediately secluded from all further intercourse with them, as it was known for certain that she had never had the disease. On one occasion only she saw one of the children, who was regarded as quite recovered. On Friday, April 16th, Mrs. M. became ill, and on the 20th a profuse crop of measles appeared upon her. The fever ran high, but, unfortunately, no thermometrical records were kept. On the 21st Mrs. M. vomited constantly, and was otherwise very ill; there was, however, no appearance of uterine contractions. On the 22nd the vomiting

* "Lancet," 1875, vol. i. p. 688. In the course of the discussion on puerperal fever at the Obstetrical Society of London.

† The two remaining cases were mentioned in the discussion which followed the reading of the Paper. Through the kindness of Dr. Macdonald and Dr. Bruce I am enabled to print them here in some detail.

ceased, and she was much better. She then rapidly recovered and was safely delivered, by Dr. Macdonald, of a healthy female child on the 29th of May.

The last case I can give occurred in the practice of Dr. Robert Bruce, and is as follows:—Mrs. M., in the eighth month of her second pregnancy, was attacked with measles on the 4th of March, 1878; a few days later broncho-pneumonia supervened. On the 9th she had a very distressed appearance; her respiration was quick and laboured, her pulse rapid, and she had severe pain in the back. Labour came on the 10th, and she was safely delivered without any untoward event. The child, though born alive, only survived about two hours, respiration having never been fully established. After delivery the general symptoms remained the same. On the 11th the pulse was 136; temp. 103.2° Fah. On the 12th the highest temperature observed was 102.8° , and the respirations were at one time fifty per minute. On the evening of the 14th the pulse reached 145, the temperature 103.4° , and the respirations sixty. From this time the symptoms slowly declined in severity. By the 18th the pulse had come down to 110, the temperature to 101° , and the respirations to forty per minute. On the 28th the pulse was 82, temperature nearly normal, but the respirations still rather high—viz., 30. She continued to improve, and made a good, though tardy, recovery.

In addition to these cases, Thomas, in speaking of congenital measles, alludes to cases seen by Vogel, Frank, Gittannes, and Seidl. The latter writes that the eruption may appear on the mother and child immediately after the birth of the latter, or the infant can be born already affected; but he makes no statement as to the number of his cases. I have not been able to procure the original papers. In the *Lancet* for May 22nd, 1880 (p. 811), mention is made of a case of measles having occurred in a lying-in woman in the General Lying-In Hospital, London, contracted from the children of the matron; but no details are given.

Remarks.—It seems beyond doubt, from the very small number of cases which have been collected, that measles is quite a rare complication, both in pregnancy and the puerperal period. This is probably due to the circumstance that most adults are protected by an attack of the disease during childhood. That this protection is pretty thorough is shown by the statements of authors and

speakers, who, like Squire,* have seen mothers so protected, nurse their sick children up to the time of delivery, and escape. In another case the poison must have been concentrated in the room, as the child took the disease a fortnight after birth, the mother remaining well. Greene, in the same debate, stated that he had on several occasions seen children with the rash of measles in bed with their mothers, when they were confined, with no ill result. At the same time the protection is not absolute, for in two of the cases quoted above, (those of Doléris and Chausit), it is stated that the patients had already had the disease in infancy. These cases are in consequence looked upon by some as doubtful cases of measles. One of these recovered, and in the other case the result is not given.

The cases being so few in number, only eighteen, I am unwilling to attempt to found upon them any conclusions: but the facts brought out by them become more clear by dividing them into two groups, according as they occurred during pregnancy, or in the puerperal period, and analyzing them as far as the details given will allow. In fifteen of the cases the result to the mother is given, in three there is no information on the point.

In seven of the cases the disease occurred during pregnancy, two at the eighth month, two at the seventh month, one at the sixth, one at the fourth, and the other at a period not stated.

In two of these the pregnancy remained uninterrupted, the patients going on to the full time. Of the five who miscarried, two recovered, two died, and in the other the issue is not given.

From these cases it is clear that an attack of measles in a pregnant woman is a very serious occurrence, and one to be very carefully avoided by one who is not protected by a previous attack.

This agrees with the general statement made by Ramsbotham, Montgomery, and others, that when pregnant women are attacked by epidemic contagious diseases they suffer severely, though, it is added, they are less liable than others to be attacked by them. On this latter point we have no data before us. Sir James Simpson,† however, expresses an exactly opposite opinion. He makes the remark, which he says is applicable alike to measles, small-pox, and scarlatina, that when they occur in a pregnant female they very rarely prove fatal to her. Or if they do not attack her until ten days or a fortnight has elapsed after her con-

* *Lancet*, *l. c.*

† *Loco cit.*

finement, they are not specially dangerous. But whenever they appear in a woman within six or eight days after her delivery, they are always alarming and very often fatal. This last remark is fully borne out by the two cases recorded where the disease began on the fourth day after delivery.

This brings us to the second group of the cases—those, namely, which occurred at the end of pregnancy, or during the lying-in period.

Of the eleven cases, five recovered, four died, and in two the result is not mentioned.

Among those who recovered, the delivery in two cases took place on the second day of the disease, and in two on the fourth day of the disease, and in the fifth case during the eruptive period.

Among those who died, one died during the eruptive stage ; a second was delivered during the same stage, but how long she survived is not mentioned ; the third was attacked on the fourth day after confinement, and died eighteen days later of metro-peritonitis ; and the fourth was likewise attacked on the fourth day after confinement, and died within three days.

Thus, of the eleven who were attacked at the end of pregnancy, nine suffered from the disease before delivery, and of these five recovered, two died, and in two the result is not given ; while the two who were seized within a few days after delivery, both died.

From this we appear justified in concluding, as far as our limited numbers permit, that measles is most fatal when it comes on soon after delivery, while those who are confined during the course of the disease stand a much better chance of surviving it.

The lesson which we learn from this series of cases is, that measles is an exceedingly serious, and frequently fatal, complication both of pregnancy and the parturient state ; and with this lesson we must be content until more cases are published by those who have an opportunity of seeing them, or until further research has succeeded in collecting a larger number of better recorded instances.

NOTE.—While the above was in the press, I have come across a work of Dr. L. V. Bourgeois, "*De l'influence des maladies de la femme pendant la Grossesse sur la constitution et la santé de l'enfant*," Bailliere, Paris, 1861. He groups measles and scarlatina together, and says : "We have observed fifteen cases of measles among pregnant women. Eight of them

aborted, or were confined prematurely. Among the others the pregnancy was not interrupted by the disease. Five gave birth to non-viable children ; three were delivered in the seventh or eighth month. Where the pregnancy was advanced from the second to the fifth month, the disease followed its ordinary course, but was more severe in proportion as the pregnancy was more advanced. The prodromata of abortion manifested themselves towards the end of the disease. The abortion generally occurred one, two, or three days later ; sometimes after the disease had terminated. When women were attacked who had reached nearly the end of their pregnancy, delivery took place early in the disease, in the middle of the fever and the severe symptoms. The children were still-born, or died a few hours or days after birth. The disease continued its course, and the mothers gradually recovered. Only one of our cases, who was seized with scarlatina maligna, died on the fifth day after confinement. In rare cases the children have been born with measles upon them. Rosen and Vogel report observations of this kind. M. Guersant has seen one case, and I have myself also seen one. The infant lived three days, and then died. It was born a fortnight before its time." I have given this statement in full, because the numbers mentioned are larger than those recorded by any one else ; but the statement itself is very incomplete, and one cannot be sure how many of the cases were measles, and how many were scarlatina ; the fatal one is distinctly stated to be a case of scarlatina maligna. The paragraph which follows the one quoted above deals with severe epidemics of scarlatina, and it is stated that all the pregnant women who were attacked by the disease miscarried and died.

A CASE OF SPONTANEOUS EXPULSION OF LARGE UTERINE FIBROIDS.

By H. W. JACKSON, M.R.C.S. Eng.

Lewisham.

LATE in the evening of March 19, 1880, I was called to M. A. G., aged forty-two, who had had one child about eighteen years ago. She was very thin and pale, almost pulseless from hæmorrhage, and was suffering from severe paroxysmal pains, which she described as "exactly like labour pains." She had had the pains with but little intermission for nearly four days. Blood was then oozing from the vagina, and the patient stated that for some years she had been subject to much loss and suffering at each monthly period.

On examining the abdomen externally, the uterus was found to be as large as it is in the eighth month of pregnancy ; it was firm and hard, and a little to the left of the middle line. On passing the finger into the vagina, a hard, round, pear-shaped tumour, or

polypus, was discovered, which filled the whole of the cavity, and pressed with considerable force upon the outlet. With each uterine pain it came still lower. It was so bulky that I could not feel its insertion into the uterus, and I was unable to determine to my own satisfaction its diameter at the most distant point I was able to reach with my finger. It was covered with loose mucous membrane, which was doubtless the lining membrane of the uterus.

I gathered from the patient that she attributed the affection to a kick on the abdomen, by a little child, eight years ago. At all events from this date she began to feel uneasiness, or pain, in the womb. Six years ago she suffered from vomiting, which was occasionally very severe, and which no medicine seemed to be able to control. The vomiting occurred "off and on" for many months. At the same time she began to suffer from hæmorrhage and dysmenorrhœa, and these had continued with gradually increasing severity ever since. Three years ago she went to the London Hospital as an in-patient under Dr. Herman; and she remained under his care for about fourteen weeks. At that time she had a uterine tumour which reached to within half an inch of the umbilicus, and which was ascertained (by exploration after dilatation of the cervix) to be a large soft fibroid, "springing from the posterior wall of the uterus, rather more to the right than to the left: its base being so broad as to form its greatest diameter." She was treated by ergot, administered by the stomach, without any appreciable benefit, and then by dilatation of the cervix, and the application of tincture of iodine to the interior of the uterus: this latter measure seeming to diminish the discharge. The case was published by Dr. Herman as one of a series illustrating the effect of ergot upon uterine fibroids, in the *Medical Times and Gazette*, vol. ii. 1879, p. 98, where further details as to her then condition will be found. Sometime during last autumn she again went to the hospital for a few hours, but as she was unable, from fatigue, to remain in the out-patients' room, she came away (as I understood) without seeing the doctor.

For the oozing of blood I ordered cold wet cloths to be applied to the vulva, and for the pain I gave ℥ss of Howlett's solution or purified opium, and advised ℥ss to be repeated every half-hour until the pain abated.

Next day the patient looked better; there was no further loss of blood; and the occasional twinges of pain were readily kept under by small doses of the opium.

On the afternoon of the following day the tumour appeared to be softening and breaking up. It was offensive, and I ordered an injection of sanitas every two hours. I made arrangements for Dr. Fisher to see her with me on the following day, in order that I might, with his assistance, remove as much of the tumour as could be readily got at.

On the 22nd, Dr. Fisher kindly saw the patient with me. A large mass of the tumour was hanging down from the vagina, and I succeeded in cutting away, with a pair of scissors, a piece very considerably larger than my fist. It was dragging down the womb and distending the vulva, and the suffering which resulted was distressing to witness. With the removal of the portion referred to, the pain ceased and the patient felt comparatively comfortable. The sanitas injection was continued every two hours, night and day, and the patient seemed pleased with its detergent effect. Next day the residue of the tumour was found to be disintegrating rapidly, and large portions came away with each injection.

On the 24th (two days afterwards) the patient complained that she once more had the "labour pains," and she begged for some more opium. I supplied her with some pills containing one grain of opium, and advised her to take one every four hours so long as the pain was severe.

On the 25th there was no particular change; the patient was still taking an opium pill occasionally.

On the 27th, after much pain during the night, a second tumour was extruded from the uterus. It was apparently in every respect similar to the first.

Next day, 28th, Dr. Fisher not being at home, Mr. Bowen kindly saw the patient with me, and by means of the wire écraseur, I cut away a portion nearly half the size of a cricket-ball. The removal of this mass gave relief, as the pressure on the anterior part of the vagina was thereby much diminished. I had now room to pass the wire well down towards the pedicle of the tumour, and I succeeded in getting well hold of a very large piece. Unfortunately, in screwing the wire home it broke, and I had to defer proceedings until I could get another wire.

Two days afterwards (on the 30th), as I had to attend a delicate lady in her confinement, I considered it inadvisable that I should pass my fingers into the decomposing mass. Dr. Fisher, therefore, with the assistance of Mr. Bowen, was kind enough to remove a second portion of the second tumour. The piece was

quite as large as a cricket-ball, but Dr. Fisher was unable to get it through the vaginal opening. A dilute solution of the permanganate of potass was used after this day as an injection.

Next day the excised portion of the tumour was passed spontaneously, and I saw it. It was quite as large as a cricket-ball, and the cut surface of that portion of the tumour which remained attached to the womb could be easily felt and recognized.

On April 1st large quantities of *débris* came away every time the syringe was used ; and in the afternoon I washed out the vagina myself, and cleared it so completely that no portion of tumour could be detected in the passage.

On the 2nd of April, after a recurrence of uterine action and pain, the vagina was once more completely occupied by a tumour quite as large as either of its predecessors. But it was evidently softening ; it broke up readily under the finger, and I removed the greater portion of it with a uterine forceps. The patient bore up well, and was quite cheerful. She took nourishment readily. The abdominal swelling had now disappeared, and the uterus had so diminished that it felt like, and was quite as small as, a well-contracted uterus after delivery.

On the 4th there were symptoms of blood-poisoning ; the patient had been slightly delirious during the night ; there was diarrhœa, there was thrombus of the left external iliac and femoral veins with swelling of the left lower extremity, there was a cadaverous appearance of the face and of the body, and the pulse was frequent, feeble, and small. The vagina still contained some broken-up tumour, and I syringed and brought away a quantity of very foetid stuff.

Some of the dead tissue continued to come away daily, so that it was necessary to keep up the injection with permanganate solution ; and this course was persevered in until the patient's death on the 8th of April.

No post-mortem examination was made.

How came it to pass that these three dead tumours were expelled one after the other within so short a period ? Had they reached the natural term of their life, or had they been killed by the violent action of the uterus, which had been going on during the three or four days preceding that of my first visit ? I believe the latter to be the more satisfactory explanation. Long-continued expulsive efforts would be likely to arrest the circulation of the blood in the tumours ; and their death and subsequent extrusion

would follow as a matter of course. Had the tumours been living when passed into the vagina, they might have been removed by the *écraseur*, and the termination of the case might have been a happier one.

RUPTURE OF UTERUS—PROBABLY IN ATTEMPTS TO REMOVE AN ADHERENT PLACENTA.

By J. BAIN SINCOCK, M.R.C.S. Eng., L.S.A. Lond.

ON the 5th of June, 1880, I was called to S. C., æt. twenty-nine, who was then in labour with her first child.

I found the patient walking about the room, the pulse fair, the woman cheerful. On examination *per vaginam*, the os was dilated to about the size of a sixpence, and the head presenting. The pains were moderate, and coming on every ten or twelve minutes. I instructed the midwife in attendance to send for me when the os was fully dilated.

I was called again at 5 P.M., and found the woman had been delivered of a female child two hours previously. The nurse sent for me because she had been unable to remove the afterbirth. (I found afterwards she had attempted its removal by passing the hand into the uterus). At the time of my visit, the patient was pulseless, and her countenance expressive of anxiety. I ascribed her condition to exhaustion, knowing that for some weeks she had had a very scanty supply of food. No hæmorrhage of any consequence had occurred. On placing the hand over the uterus, I found that organ contracted with a moderate degree of firmness, but my attention was at once attracted to a small tumour situated immediately over, and slightly to the left of, the fundus uteri, and firmly connected with that organ. With the finger in the vagina the placenta could be felt, but moderate traction on the cord produced no effect. Seeing the woman was in such a low condition, and that the hæmorrhage was very slight, I decided on waiting a little longer before introducing the hand into the uterus. I ordered *ergot* and *ammonia* in small doses frequently repeated.

At 7.30 P.M. the patient had rallied a little; pulse hardly perceptible. After-birth as before. Rather strong traction on the cord proving of no avail, I passed the hand into the womb, and found the placenta firmly adherent to the anterior wall, close up to

the fundus. In searching for the upper placental edge, I found the index finger was in what I took to be the narrow portion of an "hour-glass contraction," but with the left hand over the abdomen I could distinctly feel the tip of the right index finger. I then for the first time recognized the true condition; the finger was clearly through the uterine tissues, and in the abdominal cavity. I estimated the rent to measure about an inch and a half in length. A portion of the placenta had been protruded through the uterine wall, and that gave rise to the small tumour that had previously attracted my attention. Finding I could not peel off the adherent placenta by using only a moderate force, I withdrew the hand.

June 6th, 10 A.M.—The patient has had a restless night; slept a little towards morning; constantly sick during the night; unable to keep anything on the stomach. She is now more cheerful; pulse very weak; complained of pain when the abdomen was examined; the small tumor over the uterus could not be felt. Placenta still adherent.

She felt quite comfortable up to about 5 P.M. when she wished to be turned on her side, immediately after doing so, she died.

Post-mortem examination eighteen hours after death.—Body fairly nourished, rigor mortis present. On opening the abdominal cavity, the intestines were found unusually empty; there was no blood beyond a slight stain on the fundus uteri. The uterus was removed entire. The rupture was found to be situated half an inch above, and to the right of, the insertion of the left Fallopian tube, and running almost directly across the fundus. The rent, which included the peritoneal covering, measured three-quarters of an inch in length, the edges being jagged and uneven. The uterine tissue in the vicinity of the rupture was perfectly healthy. There were no signs of old or recent peritonitis. The placenta was firmly adherent: had the poor woman lived I think it could not have been removed except piecemeal. The abdominal was the only cavity examined.

NOTE ON CHIAN TURPENTINE IN UTERINE CANCER.

By GEORGE ELDER, M.B.
Surgeon, Women's Hospital, Nottingham.

IT will be within the recollection of your readers, that in the early part of the year, Mr. John Clay, of Birmingham, brought to the notice of the profession a new method of treating cancer, supplementing his remarks by the relation of cases apparently cured.

Doubtless, like many of my brethren, I at once set about trying this wonderful remedy, and was fortunate in having at my command a fair stock of turpentine, which had been in the possession of a local chemist for sixteen years, and answered to the description given by Mr. Clay. The cases in which, from the length of time over which the trial has extended, I am warranted in citing as tests, are three. Two are examples of medullary and one is an instance of epithelial cancer. The latter and one of the former were certainly far advanced when the treatment was commenced ; but the remaining case was only beginning. The drug was administered in the form of a pill, according to the published formula. In every sense has the result been disappointing. In one case there seemed to be an alteration for a short time in the quality of the discharge ; but so far as the pain, the progress of the case, and the progressive general exhaustion was concerned, the pills had no effect, beneficial or otherwise.

In two of the cases its use for a time was followed by an urticarious rash.

It is possible Mr. Clay may object to the quality of the drug used, as he has done on other occasions ; but, as the pages of the medical papers testify, my experience as to the worthlessness of this remedy does not stand alone ; and it would look better if its introducer, instead of taking for granted that the drug used was impure, would inform his professional confrères of the source from which he obtains his examples, so that there could be no question as to its genuineness. The purpose of this communication will be gained if it elicits the experience of others in the matter.

CLINICAL EXPERIENCES OF PUERPERAL FEVER.

By A. D. LEITH NAPIER, M.D.

Fellow Obstetrical Society; Member Edinburgh Medical Chirurgical Society, &c. &c.

IN submitting a record of clinical experience of puerperal fever, I have to disclaim any strong bias on the subject. I am aware that some of my views are not in accord with those of many of our present authorities, but when in practice in Fraserburgh, in Aberdeenshire, I had opportunities afforded me of seeing and judging for myself, and this must be my excuse for venturing to hold and expound these beliefs.

The following cases are, for the most part, too short for satisfactory clinical records; the notes were not taken with any view of subsequent publication.

I am conscious that many imperfections are patent, both in the matter and manner of my contribution; but I trust these deficiencies may seem less conspicuous to others than they appear to me. I have purposely avoided recording my impressions until I could do so with perfectly dispassionate feeling. Most of the following was written fully four years ago. The first twenty-two cases have previously been published, at the request of the Buchan Medical Society, in pamphlet form, in 1875. The other cases and the observations are wholly new matter. As the most important issues regarding puerperal fever have yet to be decided, I think it incumbent on every one who has had experience of the disease to contribute his quota to the general store.

The country practitioner has, from his independent position, freedom from miasms, the dangers of lying-in-hospitals, &c. &c., the best means of forming an accurate judgment.

If every practitioner would, without fear of his personal reputation, honestly record all cases he meets with having a resemblance to puerperal fever, I think we should speedily have more unity of opinion regarding the true nature of the evil.

I have, in the following pages, confined myself to the one epidemic outbreak I have seen, and have in no way noticed other cases of so-called puerperal fever met with in my practice from time to time.

I do not reckon case (a) as one of fever, but as it may have some bearing on the series, I have thought it best to record it.

(a) Oct. 25th, 1874.—Called to see Mrs. George C——, who had
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been attended by Mrs. S., midwife, for an abortion some ten or fourteen days previously ; since then, a very offensive discharge and pain in the uterine region were observed. On examination I found the os uteri contracted, and something occupying it, which, on extraction, proved to be a fragment of placenta. Eventually I succeeded in dilating and removing piecemeal, most, if not all, of the foreign substance, which had a most offensive smell, and was exceedingly friable. The vagina was thoroughly washed out with a solution of Condyl's Fluid several times daily by the midwife, and the patient soon was well.

I. Oct. 30.—Attended Mrs. T——; rather weak, of hæmorrhagic diathesis, and, after a few hours' labour, delivered her by forceps of a son. Patient did well till the evening of November 1, when she complained of tenderness, and pain on pressure of right groin, ovarian region rather enlarged, difficult micturition, lochia very fair in quantity, no uterine tenderness. Counter-irritation, mustard poultices, morphia, and spt. ætheris nitros. formed the treatment. On 21st perfectly cured.

II. On November 3rd, at 6 A.M., desired to attend Mrs. Wm. W——, at Rosehearty, five miles west from Fraserburgh, primipara, aged twenty-nine. *History*.—Two or three days before, she had visited a sister-in-law, who had puerperal mania, and from that time she had been sick and feverish, with intense headache. Uncertain length of first stage of labour. No severe pains till eight hours before parturition. I found the labour dry, with a tense, undilating os. Sponge tents were used, and, in course of time, the os being fully dilated, and the head low down in the pelvis, the forceps was applied, and the case terminated. Throughout labour there was great sickness with almost incessant vomiting. After the birth of the child the sickness was greatly relieved, the vomiting quite stopped. 4th November.—Visited patient ; vomiting returned, pain over uterine region, lochia said to be present. Poulticing and brandy were ordered. Evening of 4th.—Visited by Dr. Mellis. Patient worse ; twelve leeches were applied, partly over uterus, partly to perinæum ; a few hours later she was easier, sickness still present and uncontrollable. November 5th.—Patient quieter ; pain a little abated over abdomen, no lochial discharge, diarrhœa, which had been present from delivery, continued, as also sickness and severe retching. Died in the evening—no pain. The child, which was to all appearance healthy, became unwell on evening of 5th, with suppression of urine. I saw it on 6th. Serous effusion

in vulva, cried much on laying hand over abdomen, pulse quick and jerky, bowels loose, suppression of urine ; on puncturing vulva with needle a considerable quantity of clear serum escaped. Ordered potas. nitrat. et chloral hydrat. 7th.—Still the same, but urine coming freely. Died on morning of 8th. Cadaveric lividity rapidly appeared on abdomen.

III. After disinfection, on November 6th, I attended Mrs. R——, twenty-four, Fraserburgh. Two previous confinements, which were comparatively easy. I was with her only about twenty minutes, labour being very rapid, she had the first pain about three hours before delivery. She began to feel unwell on evening of 8th November ; on visiting her, she had very quick breathing, and high temperature, pulse fair, not so fast in proportion as height of temperature would have indicated, lochia very free, no pain, but an uneasy feeling over lower part of abdomen. Poultice, calomel, slight stimulation. November 9th.—A good deal better, bowels well moved, breathing still quick, temperature not so high. Quinine was prescribed. November 10th and 11th.—No peritonitic pain, free discharge, pulse jerky, slightly intermittent. November 12th, 2 A.M.—Hastily summoned ; patient thought to be dying ; pain over chest in the epigastric and left mammary regions ; breathing very short and quick ; pulse exceedingly fast, then slow, then stopped ; no friction-sound over heart. Ordered counter-irritation, diffusible stimulants. Stayed with her till about 5.30, when she was a little better. November 12th.—Through the day she improved, but having a return of the bad symptom through the night, died on the morning of the 13th. No pain. Baby suckled first day, but was weakly, having in a day or two sore eyes, and sores on head ; took peritonitic pains, with diarrhœa on 19th, died on 24th.

IV. November 12th.—Desired to go four miles east to Cairnbulg to see a woman who had died that morning at 7.30, to, if possible, certify cause of death. Learned that Mrs. B——, had received some injury a few days previous to 11th November, when she was taken with labour pains, and delivered by Mrs. W——, midwife, of a child at 9.30 P.M. I did not particularly examine her as I had been asked to see Case V. She was said to be forty years old, was a stout, well-made woman, multipara. The uterine region was much swollen. Incipient putrefaction was evident in left groin, and right knee, and thigh, as early 11.30 A.M. on the 12th.

V. Much against my will I went to see Mrs. S——, twenty-

four, primipara. She had been attended by Mrs. W——, Cairnbulg, from 9th of November. I emptied the bladder, which had not been freed of urine for thirty-six hours previous to my seeing the patient. The anterior lip of os was very tense, and as the liquor amnii had escaped some time before, I, by pressing on it, eventually freed the head, gave ergot, and sent for forceps, but delivered after a stiff labour, before it arrived. I left instructions with the midwife to take every precaution against fever. November 14th.—Sent for ; saw her at 5.30 A.M. Intellect clear, short quick breathing, no pulse at wrist, no pain, lochia in sufficient quantity, no very offensive odour. (I learned the bowels had been opened well on 13th.) Complete suppression of urine. No cardiac friction murmur. In spite of free stimulation, she died at 6.30, in a state of syncope. The friends said she had been pretty well on the 13th, and never complained of pain.

VI. On 1st of November, saw Mrs. M——, Fraserburgh, who had been delivered six or seven days before by Mrs. S—— (same midwife as attended Case *a*). This patient had ovarian pain on left side, which speedily yielded to treatment, then phlegmasia dolens developed itself and was exceedingly severe. Treated by leeches, quinine, brandy, diaphoretics. Cured 30th of November.

VII. November 13th.—Mrs. John W——, a patient of Mrs. S——, residing in Broadsea, half a mile west of Fraserburgh, was desirous of seeing me. She had a swelling in left groin, with considerable pain, offensive discharge, difficulty in micturition, alternating constipation and diarrhœa, irregular pulse, and furred tongue. She was confined a few days before I saw her. A dose of calomel, spirit. ætheris nitros., and liquor morph. hydrochlor., with stimulants, and counter-irritation by means of turpentine stupes, also injecting a warm solution of Condyl's fluid per vaginam, effected a cure by the 21st.

VIII. November 18th.—I saw Mrs. James T——, another patient of Mrs. S——, delivered three weeks previously. I learned that the lochia continued for eight days after delivery. The day before I saw her she had "a shake," and told me she had been making a very bad recovery ; her symptoms were similar to Case VII. ; difficult micturition, pain in left ovarian region on pressure or motion, and a quick irritable pulse. The same treatment, omitting the Condyl's fluid, was used, and a complete recovery was the result by 28th of November, when she got up, and, in a day or two, could resume household duties.

IX. November 26th.—Called to see a patient of Cairnbulg midwife, who had had severe pain in the uterine region from the 25th (two days after her delivery). I found great tenderness over the lower part of the abdomen, lochia offensive and rather scanty, tongue furred, temperature high, pulse irregular, breathing rather quick, otherwise normal. *Treatment*: mixture of sulphite of soda, quinine, morphia; stimulation, turpentine stupes; injection of permanganate of potas. Improved till 29th, when she was said to have been much worse. 30th of November.—Visited her. The peritonitis and metritis quite gone, but pneumonia of the right upper and middle chest well marked. *Treatment*: local depletion, continue mixture, omitting morphia, give wine and brandy freely. After leeching, was said to have improved, but died very suddenly after being “quiet”—*i.e.*, collapsed—for an hour, towards morning of the 1st of April.

X. After careful disinfection, I attended, at her urgent request, Mrs. W——, Fraserburgh, on morning of 30th of November; her labour was rather tedious, though natural, she was consequently treated, after delivery, by stimulants, and, as after-pains were troublesome, a draught of nitre and morphia was given occasionally. December 7th.—She had pain over the lower part of abdomen, and tenderness to touch. She said the discharge was thin, and it had a disagreeable smell. Injection of liquor potas. permang. in warm water, with warmth applied externally, improved in one and entirely removed in three days any unfavourable symptom.

XI. December 8th.—Eight days after last delivery, and after disinfection, attended Mrs. Charles S——, Pitullie, two-and-a-half miles west from Fraserburgh. The patient was a primipara, and Mrs. K——, midwife, Pitullie, had been a considerable time in attendance. I at once delivered by forceps, the uterus contracted well, the patient was carefully washed after delivery. Left orders anent prophylactic treatment. 11th of December.—I saw her again; she had symptoms of peritonitis, pain over abdomen, scanty lochia, quick pulse, tongue clean, diarrhoea and retching. *Treatment*: injected Condyl, warm external appliance, opium per mouth and rectum, ten grains of quinine every three or four hours. and wine or brandy to be given freely. 12th of December.—Found lochia suppressed, and severe general peritonitis—twelve leeches were applied over abdomen, and the bleeding from the wounds encouraged. Medicines continued. The diarrhoea diminished; retching gone. 13th of December.—Visited; all

tenderness gone, lochia returned, tongue clean and moist, diarrhœa stopped, pulse very weak, sometimes not felt at wrist, breathing weak but regular, intellect clear and composed. Continued quinine, champagne, and brandy. She sank gradually, and died that evening.

XII. On 16th of December I was summoned to see Mrs. W——, Peathill, three miles west from Fraserburgh, a patient of Mrs. M——, midwife, Roseheart. Mrs. W—— was delivered on 13th of December. I heard there had been some pain and tenderness to touch in the ovarian regions; when I saw her there was little or no pain, very sharp pressure in the left ovarian region gave a sensation of pain; lochia free, with no bad smell; a cough, but no bronchitis, pleurisy, pneumonia, or heart lesion discoverable after very careful examination. She had been slightly incoherent on the two previous nights, and there was no lacteal secretion. Stimulant, expectorant, and sedative treatment employed. A large injection to be given per rectum. 17th of December.—I received accounts of my patient—the bowels had been moved, she was said to be progressing favourably. 21st of December.—Visited; found her very weak, but no trace of inflammation anywhere, cough much relieved, taking a little food with relish. On the morning of the 22nd she became rapidly worse, with short, quick breathing, and a great feeling of oppression at the chest; died at 1.30 P.M. ere I could see her. Her baby died on the 19th of December, very suddenly, with, I was told, somewhat similar symptoms; I, however, did not see it. The midwife told me two other cases had occurred in her practice—one was slight and recovered, the other had peritonitic symptoms and died. Both were treated by Dr. Grieve, Fraserburgh, and will be noted afterwards.

XIII. January 24th, 1875.—I attended Mrs. D——, at Memsie, fully three miles south-east from Fraserburgh. My patient, a healthy, large, well-made woman, had several children previously comparatively easily. As the labour was rather tedious, I applied the forceps, and immediately delivered. I was asked to see her next day, and visited on afternoon of 25th of January, I learned that she had felt a slight pain in the lower abdominal region about 2 A.M. on the 25th, nearly twenty-eight hours after delivery, since that time the pains had gradually increased on motion, or on her being touched. Her condition when I saw her was—pulse 118, rather irregular; tongue clean; pain on motion, or pressure;

the latter pretty severe over hypogastric, and a little over umbilical, regions, very little at sides; lochia scanty in quantity, no bad odour. The temperature of vagina not much higher than normal, no rents could be discovered in its walls or in the vulva. A little milk in breasts, the infant had been applied, but not since early morning. The bowels had not been moved, urine had been passed, but not very freely, there was a slight hiccup. *Treatment:* hydrarg. subchlor., grain vi., to be followed, if necessary, by enema, six grains of quinine, and a half-grain of opium, every four or six hours. Turpentine stupes followed by warm water stupes or poultice. Syringe with warm solution of permanganate of potas., if pain is excessive use suppositories of hydrochlorate of morphia. Take wine or brandy. 26th January.—Visited in afternoon. Pulse 100, regular, tongue clean, scarcely any pain over abdomen, lochia more free, bowels opened three times, urine scant; baby at breast, drinking well. Repeated turpentine stupes, 45 minims of morphia solution at night, thereafter continued powders. From this date so favourable were the accounts given, that she was not seen till 31st January, when she thought herself very well, and considering the circumstances, was so. A tonic, gentian with bromide of potas., was given. Visiting on 7th February, she had been washing on 6th, but could not “stand up very well for a pain in her right side.” Had somewhat difficult and scanty micturition. Apply iodine paint over right ovary. R Liquor morphiæ hydroch. drs. iij, spt. ætheris nitrosi, drs. v. M. Dr. j, ter in die. No further visits necessary. 20th February.—Attended a case rather difficult; non-instrumental; no fever; good recovery.

XIV. March 5th.—Attended Mrs. M——, Fraserburgh, primipara, a small fragile woman. She had been attended by Mrs. S——, midwife, who had been with her for a long time—I cannot remember the number of hours. On my examining her I found the head well advanced, and soon learned that it made no progress with the pains. As she was becoming exhausted, I applied the forceps, and speedily delivered her. For a few days, with the exception of some difficulty in making water, which improved under treatment, she did well. She was taken ill about a week or ten days after her confinement, and on my next seeing her, about the end of April, I was informed that she had made a bad recovery, having had acute ovarian inflammation of the left side; was still under treatment. After blistering and giving quinine, she was cured in May.

XV. Mrs. E——, Fraserburgh, was attended by Mrs. S——,

midwife, who, as labour was tardy, sent for Dr. Mellis on March 6th. Instruments were not required; she did not recover well; was confined to bed for three weeks, she then rose, when the right ovary became inflamed; after suffering severely for a week, an abscess having formed, it burst and discharged the pus per vaginam.

XVI. On the 29th of April I delivered a girl, M'Rae. The following is the report of the case by Mr. M'Robert, my *locum tenens*:—"On April 26th I was called to see a girl, M'Rae, Fraserburgh. When I went, I found labour was scarcely begun. After a tedious wait of two days the os was fully dilated, and the head began to descend into the pelvis, but, as it made no progress, I sent a note to Dr. Napier, asking him to apply the forceps for me. He immediately did so, and the patient was soon delivered. She was seen next day by Dr. N., and was very well. On the following day she was not visited. Next day I saw her, everything was as well as could be wished. She was not again visited till the sixth day after delivery. On examining the patient, I found the pulse 94, tongue rough and furred, respiration rather hurried. I was told that the secretion of milk was almost gone, and, on inquiry, found that the lochia was entirely stopped, and had been so for twelve hours; there was great tenderness on pressure over the abdomen. I immediately ordered her 8 grains of hydrarg. subchlor., and to use hot poultices. I saw her next morning, found the symptoms all aggravated, I then prescribed other 8 grains of calomel and 4 grains of quinia, and a little wine. Saw her again in the evening; she had a very anxious countenance, complaining of no particular pain, but had shortness of breath, which arose partly from flatulence; she sank gradually, and died about eight P.M."*

I attended a breech case on May 21st, a difficult head case (forceps) on May 29th, besides others. All recovered very well.

I am indebted to Dr. Grieve for the following cases:—

XVII. Mrs. W——, Roshearty, delivered on December 7th, 1874; had metritis with general peritonitis; died on 23rd December. No instruments were used. Attended by Dr. G., and Mrs. M——, midwife.

XVIII. Girl R——, Rosehearty, attended by Mrs. M——, mid-

* This girl had been in labour for two days at least; the pelvis was small, so that there had been considerable pressure. She was unmarried, and, having been of rather weak intellect from birth, her pregnancy greatly increased her mental weakness. I had no difficulty in applying the forceps; I am certain there were no rents. I saw the child a few weeks after birth, it then had a well-marked syphilitic eruption all over it. This virus may in some way have predisposed the other.

wife, on December 14th or 15th, had rigors on 15th. Dr. Grieve saw her on the 17th. No peritonitis, but complained of pain and abdominal tenderness. Continued ill for three weeks. Recovered.

XIX. Dr. Grieve attended Mrs. M——, Rathen, four miles south-east of Fraserburgh, on 8th February. 10th February.—Visited. Lochia scanty, bad smell. 11th February.—Pulse 144, not so much tenderness on pressure over abdomen as on 10th. She had some rigors. Died on February 13th.

XX. Mrs. George D——, Fraserburgh, was attended by Mr. Duncan, Dr. Grieve's assistant, on March 20th; labour was very difficult, forceps having been applied for two hours, vomiting, with quick pulse, diarrhœa, and general peritonitis were the prominent symptoms. She died on April 11th. Dr. G. informed me that Mrs. D—— had been in bad health prior to delivery.

XXI. Dr. Grieve attended a Mrs. M'L——, Fraserburgh, delivered on April 4th, a patient of Mrs. H——, midwife, here. First saw her on March 8th: left ovary was tender, she had sickness, and the lochial discharge was arrested. She died on April 11th.

XXII. Mrs. John F——, Fraserburgh, was attended in child-bed by Dr. Grieve, on May 27th. Delivery was effected by forceps. She had a rigor on May 29th. The marked symptoms were, a high pulse, which after a few days fell, and then rose again; fœtid and partially suppressed lochia; pain over uterus, in short, metritis; had no milk—but never has had. Recovered in three weeks.

XXIII. Mrs. McDonald, from Golspie, who had arrived in Fraserburgh about ten days previously, was taken suddenly with labour pains during the night, between the 11th and 12th of July. I was asked to attend her, but the second stage was completed, and the child separated from the mother before my arrival. I removed the placenta, which was lying in the vagina, and the uterus contracted firmly; all clots were removed. My patient, a fine, strong young woman, progressed favourably till the afternoon of the 13th of July; she experienced a slight rigor at 5 P.M. I visited her during the evening, but was not then informed of the rigor. She complained of griping pains in the bowels, which, as she had a short time before taken castor-oil, I attributed to the medicine. Her pulse, tongue, and temperature were perfectly natural. Through the night of the 13th the lochia ceased to flow. Visited by my partner on 14th July, at 12.30. Pulse 90, tongue clean, distension of belly, and uterine tenderness on pressure. Medicine had acted, though insufficiently; no

sickness or retching ; little appearance of milk. She was ordered six grains of calomel, and to have six leeches applied over the uterus, afterwards a poultice. I visited her at 2 P.M. Bowels had been opened. Slight tenderness on pressure, mostly on left side of abdomen ; pulse 100. Baby has not been at breast since 10 A.M. Ordered warm vaginal injection of permanganate of soda, and a powder of six grains of quinine and one of opium every three hours. Revisited at 6 P.M.—Pulse 100 ; temperature 100·5° ; headache better. Some discharge after using injection ; baby has been at breast. Revisited 10 P.M.—Has had two powders ; skin moist ; pulse 88 ; feels better ; is thirsty ; continue poultice. July 15th visited.—Pulse 80 ; tongue dry ; lochia in good quantity, disagreeable smell ; patient easy : has been lying on side. July 16th.—Pulse 76 ; tongue clean and moist ; plenty of milk ; the peculiar foetid lochial odour is gone ; bowels moved yesterday ; slept well on previous night. 10th August.—Has still occasional pain in abdomen after exertion.

XXIV. Mrs. Joseph C——, residing at Broadsea, multipara, was delivered by me on June 27th. Labour was difficult, and was terminated by long forceps. For two months prior to delivery had been very weakly ; subject to slight faintings, &c. These sensations, accompanied with retching, increased during the last fourteen or sixteen days of pregnancy. She was visited very frequently after delivery, and made a slow recovery. There was no decrease of the lochial or lacteal flow ; she had been up frequently and nursed her baby ; she was never able to sit up long on account of weakness and occasional sickness ; but these symptoms, considering her state before, and the severe nature of her delivery, did not cause much anxiety. On the evening of July 14th she felt “cold and shivery,” and had frequent vomiting and purging. I saw her on the 15th, about 1 P.M. She told me that since the preceding evening (though never before) she had had pain in her bowels ; the lochia had ceased two days before (on 13th) ; she had no difficulty in micturition ; her baby had not been at the breast that day. At time of visit her pulse was 104 ; tongue dry, with slight white fur ; retching continued ; vomiting and purging stopped ; no marked abdominal tenderness. On the previous day I had prescribed half a grain of opium and four grains of quinine in powder, which I now advised her to have every three hours ; also a turpentine stupe to be applied over the abdomen ; a vaginal injection of Condyl’s fluid ; morphia

suppositories ; and brandy in free quantity. As the breasts contained milk, the baby was to be nursed still. As I felt anxious regarding her, I asked Mr. Mellis to see her with me. We, in company, visited her about 4 P.M. Her condition then was—eyes sunken, pulse 120, less abdominal distension than at former visit, no abdominal tenderness ; a clammy sweat was over all the body. The warm injection of Condry returned as used ; omit it ; continue powders and stupes ; ordered spt. ammon. aromat. and camphor. Revisited 10.30 P.M.—Pulse 140 ; respiration long, gasping, 10·12 per minute ; now sweating profusely ; tongue very dry, dark brown line in centre, thickly furred at sides, taking medicines. July 16th, 7.25 A.M.—Pulse, 125–130 ; very weak and irregular ; respiration, 20–21, long, gasping ; is sweating much less. Eyes open, pupils fixed ; the extremities, and especially below the nails, are bluish in colour. She took a cup of tea with avidity at 5.30, but since then has got gradually weaker. Ordered the inhalation of iodine ; this had no good effect ; she sank gradually, and died quietly at 8.16 A.M. Shortly before her decease she said she was much better, and quite free from pain.

XXV. Mrs. George Mair, belonging to Portknockie, came to Fraserburgh in first week of July. On 12th July about 2 P.M., she gave birth to a child, between six and seven months ; the second stage was finished and the cord divided ere I saw her. I removed the placenta from the vagina, uterus contracted firmly. Her former child, thirteen months old, and born at the eighth month, was not yet weaned ; she has been in delicate health for some time, and been coughing a good deal. On July 13th she dispensed with some blankets and had a slight rigor. July 15th 7.30 A.M., called to see her. Breasts full and turgid ; lochia in good quantity ; no abdominal tenderness ; urine free ; headache ; tongue brown, line in centre, white fur at sides ; pulse 84. Prescribed hydrarg. subchlor. gr. 8, antimon. tart. gr. $\frac{1}{4}$. Sig. statim sumend. Apply belladonna ointment to breasts. At 1 P.M. she was visited by my partner. Bowels had not operated, as powder was rejected ; ordered pil. colocynth, followed by scidlitz powder. Pulse 80–86. 16th.—Lochia in fair quantity. 17th.—Milk disappearing, no heat of skin, no motion of bowels. Take castor-oil. 18th.—Pulse 88 ; skin very dry ; tongue dry and hard ; no lochia since yesterday evening ; no tenderness of abdomen. Ordered saline mixture and vaginal injection of Condry. 8.30 P.M. —Tongue moister, micturition scanty and difficult, otherwise the

same. Prescribed spt. ætheris nitros. and liq. morph. hydroch. 19th.—Pulse 88, no lochia. Treatment to be continued. 20th, noon.—Pulse 86; tongue dry and furred; slight tenderness and swelling in left ovarian region. Turpentine stupe to be applied. 5.15 P.M.—A rigor during the evening; there has been a mixed white and sanguineous discharge. 21st, 12.25. Pulse 86; temp. 100.4; tongue furred and hacked at sides; is coughing a good deal; no discoverable chest affection; has taken nourishment. 22nd.—Diarrhœa through last night; tongue dry, less fur; micturition difficult and scanty; urine very high-coloured, no albumen; discharge from vagina stained napkin reddish, it has no smell; skin moist; pulse 76; temp. 99.2. 23rd.—Pulse 72; tongue moister; diarrhœa continues. Use morphia suppository. 24th.—Whitish discharge, no diarrhœa, improved micturition, feels very easy. 26th.—Pulse 72; tongue clean, rather dry; reddish-white discharge in free quantity. Discontinued vaginal injections. 28th.—Lochial flow ceased; pulse 76; no external swelling; difficult micturition again recurred though not in such an aggravated degree. Has been up; has little appetite. August 19th.—Has had a thin sanguineous discharge for last four or five days, is now much stronger, takes food well, and is up all day.

XXVI. Mrs. T——, North Street, Fraserburgh, multipara, delivered after an easy labour on 10th July, at 6 P.M. by Mrs. H——, midwife; had risen on 15th when she had a rigor. July 16th.—Visited by Dr. Mellis. Symptoms: lochia flow suppressed, has been partially so for two or three days, entirely for the last fourteen hours; abdomen is distended and tender; milk not arrested. Six leeches were applied and a dose of calomel prescribed. I visited her same day at 4 P.M., when she was rather easier, pulse 96. I suggested a vaginal wash of Condy's fluid in warm water, and the application of stupes to abdomen. 17th.—Pulse 80; tongue clean; a coloured lochial discharge re-established after the second injection; slept well. 18th.—Pulse 80; no abdominal tenderness; very free lochial and lacteal secretion. 19th.—Pulse 74. Patient allowed to rise in evening.

XXVII. Mrs. James Smith, of Portessie, lately come to reside in Fraserburgh, a young healthy multipara, was attended by me in labour on July 21st. Parturition was very easy and rapid, and my patient recovered well so far, that on 25th she was sitting up in bed. 26th, 3 A.M.—Had a rigor. Same day, 1 P.M., visited. Pulse 120, very full; tongue moist; has headache; no abdominal

tenderness ; scanty lochia. Ordered a saline mixture containing nitrate of potash and morphia, and a poultice over uterus. Re-visited 7.30 P.M. Pulse 104 ; temp. 104° ; headache rather better ; is thirsty ; has plenty of milk ; lochia rather more abundant ; pain over uterus on deep pressure ; no general tenderness. Eight leeches applied over uterus. 10 P.M.—Pulse 108, full, strong, regular ; temp. 102° ; respiration 28.5, regular ; pain in hypogastrium on pressure ; lochia sufficient ; micturition natural. July 27th, 10 A.M.—Pulse 96 ; temp. 100.5 ; uterine tenderness ; scanty lochia. Ordered turpentine stupes and powders of calomel and opium. 6.15 P.M.—Pulse 96-100 ; temp. 101.5 ; sweating profusely ; no headache ; lochia sufficient, coming with after-pains ; bowels moved frequently, stools have very bad smell. 28th.—Diarrhœa, otherwise improved. Use morphia suppositories. 29th.—Pulse 92 ; temp. 100.5 ; tongue furred ; is thirsty ; purging stopped ; very slight uterine tenderness ; lochia free ; micturition easy. A rash appeared during former night causing uneasy feelings. It was spread over the back, shoulders, arms, and abdomen ; had very much the appearance of rubeola ; here and there on careful observation were seen small white vesicles ; the appearance was that of sudamina. 30th.—Pulse 84 ; temp. 98.5 ; bowels moved. August 1st.—Pulse 84 ; tongue moist ; is subject to frequent sweats. Lochial discharge is purulo-sanguineous ; rash faded except on chest. Takes food fairly. 8th.—Very well ; has been up nearly every day since last recorded visit. Ordinary discharge is present.

(To be continued.)

Notices and Reviews of Books.

Tracheotomy in Laryngeal Diphtheria (Membranous Croup), with especial reference to After Treatment. By Robert William Parker, Assistant-Surgeon to the East London Hospital for Children, late Resident Medical Officer to the Hospital for Sick Children, Great Ormond Street. London : David Bogue, 1880. Pp. 82.

ALTHOUGH this book mainly treats of operative details which concern the surgeon, yet the disease of which it treats so frequently affects young children, that no one practising obstetrics can help taking an interest in its subject. Therefore, while we do

not wish to trespass upon the domain of surgery, some notices of the points which this book raises may not be out of place in our pages.

Mr. Parker is qualified to speak upon his subject by reason of his having had unusual experience in the operation he treats of, and he has a just claim to be heard, in that he has something new to say. His book is written for the purpose of illustrating and maintaining the following proposition: "The presence of membrane in the trachea in a fatal case of membranous laryngitis, after tracheotomy, must be regarded as evidence of the want of due care on the part of the surgeon in charge, just as much as would the presence of a piece of gut in the inguinal canal after herniotomy, or a calculus in the bladder after the operation of lithotomy." The author looks on diphtheria as at first a purely local disease, produced by a virus, and spreading by the contagion of its own secretion. It follows from this view, that the way to prevent the progress of the disease is to remove the infecting secretion as fast as it is formed. Therefore, after opening the windpipe, the surgeon is to endeavour, by every means in his power, to extract the membrane lining the trachea; and it will readily be conceived, that prolonged endeavours to attain this end must entail an amount of interference with the breathing-tube such as most surgeons hitherto have regarded as highly dangerous. But Mr. Parker appeals to his results to justify his practice. He appends records of twenty-one cases, of which twelve recovered and only nine died: a degree of success which will be admitted to be unusual.

As might be expected from what we have said, the most important and most novel part of the work is that which describes the after-treatment. The great object of this treatment, according to the author's view, is to prevent the accumulation, and, if possible, the re-formation of secretion in the trachea. He recommends the diligent extraction of this secretion with a feather; the use of alkaline sprays to soften and detach it; and, if the membrane cannot be got out by these means, the sucking it out through a catheter, or by an instrument which he has devised for the purpose. We cannot criticize in detail the suitability for their several uses of the instruments and methods of proceeding which Mr. Parker has devised: their utility seems proved by the success he has obtained. It is in these matters, in the details of the operation and the after-treatment, that the originality and merit

of the work chiefly consist. All who are likely to be called upon to perform this operation should consider carefully Mr. Parker's recommendations, backed as they are by unusually favourable results.

The theory of the pathological nature of the disease which the author adopts, of course leads him to think that the operation is better performed early than late; and in this we think most will agree with him, whether they accept his pathology or not. He objects strongly to the repeated and continuous use of antimony, on the ground that all forms of diphtheria tend strongly to the production of asthenia, and that the treatment, therefore, should be such as to ward off this danger. He says that "children have not infrequently been reduced to a state of exhaustion by this drug, from which it has been impossible to rouse them." He believes the only beneficial action of antimony is that which is common to other emetics: "it is a purely mechanical one, detaching the membranous exudations by the retching and vomiting to which it gives rise." As an emetic, in these cases, he prefers sulphate of copper.

The book is written in a clear, easy, somewhat colloquial style, is illustrated, and is well printed and bound. We should think it one which deserves the careful attention of operating surgeons, and all who are concerned in the treatment of the disease upon which it treats will read it with interest.

The book is dedicated, in language of high appreciation and personal gratitude, to Dr. West, under whose supervision the author worked at the Children's Hospital, and to whose teaching he attributes much of his success.

Abstracts of Societies' Proceedings.

OBSTETRICAL SOCIETY OF LONDON.

Meeting, Wednesday, June 2nd, 1880.

Dr. W. S. PLAYFAIR, *President, in the Chair.*

Fatal Monstrosity.

Dr. CHALMERS showed for Dr. McLaurin a twin monster in its seventh month. There was but one head, the face looking

laterally: the mouth leading into two throats. The necks and the bodies, which were both female and well-formed, with limbs complete for each, were united in front by the integuments as low down as the umbilicus, which was common. The mother had had one child previously, which was normal, and she could not attribute to any cause the present unnatural pregnancy. The child presented by the feet, and offered some difficulty to the medical attendant from his believing that he had two bodies to deal with. After trying ineffectually first to push back one pair of legs, and then to bring the other pair in advance, he left the process to Nature, with a satisfactory and not tedious result.

Retroflexion of Uterus.

Dr. CHAMPNEYS showed a specimen of a retroflexed uterus, in which the uterine wall on the concave side of the curve was much thicker than the other.

Dr. GRAILY HEWITT believed the discrepancy of opinion expressed at various times as to the presence of undue thickness or thinness of the uterine wall at the concave side of the bend, was probably due to the circumstance, that during the early stage of the affection undue thickening occurred, or might do so, whereas in the latter stages atrophy and undue thinning of the wall occurred. This explanation was borne out by facts he had observed.

Pathological Anatomy of Erosions of the Cervix Uteri.

Dr. GALABIN showed microscopic sections illustrating two totally different forms of erosion of the cervix uteri. He said that recent histological observations tended to overthrow the old view that the epithelium was always thrown off in such cases, and that the villous prominences were due to hypertrophy of the denuded papillæ. Ruge and Veit had contended that a single layer of apparently cylindrical epithelium always remained, while other more recent observers had found erosions actually denuded of epithelium. The two specimens shown had been removed during life, and therefore there was no question of post-mortem loss of epithelium. In one the erosion was bounded by intact squamous epithelium on the side nearest the os as well as on the opposite. Both the horny and Malpighian layer of epithelium became gradually thinner until they disappeared, and the normal papillæ had entirely disappeared at this part. The eroded spot was elevated above the surrounding

surface, destitute of epithelium, and covered with a débris of cells like the surface of an ulcer. It consisted of a tissue full of vessels, and approximative to the character of embryonic tissue, like that seen in granulations: this case therefore closely approximated to a healing ulcer. Near the spot of erosion were numerous adventitious glands in course of formation, by ingrowth of the deepest layer of squamous epithelium. The second specimen was taken from a case of bilateral laceration of the cervix with ectropion, which had presented the appearance of a villous erosion. This case corresponded precisely to the description given by Ruge and Veit. The surface was very irregular, but everywhere covered by a single layer of cylindrical epithelium. Although taken at a point which must originally have been covered by squamous epithelium, it resembled the surface of the interior of a cervical canal, except that the villous elevations were greater. The cylindrical passed by a sudden transition into the squamous epithelium. He believed that in all cases of erosion the normal papillæ were cast off and not hypertrophied.

Encephalocèle.

Dr. CLEVELAND exhibited a female child, born at term, the subject of a large encephalocèle, which had occurred in the practice of Mr. G. S. Walker, of Kilburn. The mother, aged forty-two, had borne four healthy and well-formed children. About a fortnight after quickening in her fifth pregnancy, she sustained a severe mental shock, and soon after felt a sense of weight and pressure at the lower part of the abdomen, which went on increasing up to the end of pregnancy; so that for some time before the birth of the child she had great difficulty in assuming the erect posture. Slight labour pains occurred on May 10, but it was not until a fortnight afterwards that Mr. Walker was summoned, when, on making an examination, the membranes ruptured, and he found the tumour, which puzzled him not a little as to its nature, presenting. The head, however, followed without delay, and there was nothing abnormal observed as to the placenta. The child lived forty-eight hours. It took no nourishment. When seen by Dr. Cleveland, a few hours before death, the breathing was rather heavy, and the child seemed to be sinking more from inanition than from any cause. Compression of the tumour produced no marked effect. The appearances presented were as follows:—The child was small,

but, with the exception of the head, well formed. The forehead was narrow and very retreating. The anterior portions of the parietal bones could be felt, but the occipital bone seemed to be entirely wanting. The tumour, which was covered with a ring of hair at its attachment to the skull, was about the size of a large cocoa-nut, and somewhat pear-shaped. On lifting it, the impression was like that produced by a bladder of water, although towards its root there was a feeling as of semi-solid contents, or brain substance. Around the tumour the vertical measurement was fourteen inches, and horizontally it was thirteen inches. Its depth was five inches, width three and a half inches, and girth at root eight and a half inches.

Uterine Tumour.

Dr. THOMAS CHAMBERS showed a specimen of what, before its removal by abdominal section, had been diagnosed as fibro-cystic disease of the uterus. The tumour, which comprised the uterus and both ovaries, had been removed antiseptically only a few hours before. It weighed ten pounds. The operation was not a difficult one, though both time and care were necessary. The incision was twelve inches in length. This was absolutely necessary, on account of the spherical shape and large size of the tumour, which did not admit of reduction by puncture. The broad ligaments were transfixed close to the uterine neck, and tied below the ovaries. The whole cervix was then embraced in the operator's powerful parallel clamp, and the body of the uterus removed at its junction with the cervix. One very large artery, which traversed the soft tissues at the left side of the cervix, required ligature. This could not be sufficiently compressed by the clamp because of its lateral position, and the great density of the cervix, which was transfixed and tied on either side below the ligatures embracing the broad ligaments. The loss of arterial blood did not exceed two ounces, but there was a great weight of blood in the tumour, which drained away after its separation. As the specimen was not a common one, and as the exact nature of the disease was not clear, he asked that a committee might be appointed to examine and report upon it at the next meeting, when he would furnish notes of the case, that they might be discussed together. He added, that in a case in which some years ago he had removed the spleen, death took place from collapse in eight or ten hours, the ligature applied proving useless, owing to shrinking of the stump.

Dr. BANTOCK said he had listened with interest to Dr. Chambers's account of the trouble he had had with the pedicle, for the action of the clamp was just what, from his own experience, he would have anticipated. When any portion of the uterus went to form the pedicle, the parallel blades of the clamp encountered a thick, firm, and very resistant body in the middle, with a much smaller amount of tissue on each side, and that of a very compressible kind, containing numerous blood-vessels. The thick median portion protected the lateral portions from pressure, and the invariable result would be, that as soon as the tumour was cut away, free bleeding would take place from one side or the other. This was what actually happened. Hence some form of circular pressure was absolutely necessary. In his first case the bleeding appeared to be perfectly controlled by ligatures, but the peculiar nature of the uterine tissues caused them to give way before the force of the ligatures, and some oozing took place from the stump. The post-mortem examination of the uterus showed that the force had in the first instance reached the deepest part of the uterine tissues, for the mucous membrane presented a distinct line of slight ulceration. Yet a No. 6 or 8 catheter could be passed easily along the canal. He was inclined, from this experience, to recommend Kœberlé's *serre-nœud*, as the constricting force could by it be applied gently at first, and then increased from day to day as required.

Two Cases of Extra-Uterine Fœtation, with Results.

By Dr. CHARLES H. CARTER.

The first patient, aged thirty-eight, was admitted into the Hospital for Women, Soho Square, as an urgent case of extra-uterine fœtation. She was in a very critical state; pulse 150. There was a tumour towards the right side as high as the umbilicus, and continuous with a soft doughy mass occupying the pouch of Douglas. Menses had ceased, and she had supposed herself pregnant, in December, 1878. In April, 1879, she was in St. Bartholomew's Hospital, under Dr. M. Duncan, with supposed retroversion of the gravid uterus, and an attempt was made to push up the swelling. At the end of August she passed a large substance by the vagina, and was re-admitted in September. Extra-uterine fœtation was then diagnosed, the fœtal heart having been heard on her first coming to

the out-patient room, but afterwards ceasing. The uterine probe entered six inches into the abdominal hardness, and the point felt as if less than the thickness of the unimpregnated uterine wall covered it. The patient left against advice. A fortnight before her admission under the author in January, 1880, she was seized with abdominal pains. A superficial abscess, pointing near the umbilicus, was opened on the 26th, and fœtid pus and débris let out. On February 12th, a piece of bone was felt by a probe, the opening was enlarged, and the fœtus extracted. The placenta did not come away with the fœtus, and the discharge was very offensive for three days. A discharge took place per vaginam on the 23rd, and the patient afterwards quickly recovered.

The second patient, aged thirty-four, was admitted in July, 1879, for what was supposed to be pelvic cellulitis. The uterus was fixed, and there was a swelling on the left side up to about an inch above the iliac crest. She went out on October 8th, the swelling being smaller. At the end of October some fœtal bones were passed per rectum, and she was re-admitted in December. Discharges of bones went on until May, when some large flat pieces were nipped in two and extracted. The author thought that, if he had diagnosed this case in the earlier stage, he should have been justified in endeavouring to evacuate the cyst through the abdomen.

Dr. POOLE asked if the hand introduced into the rectum would not have been of use in the second case? If a point were taken in the forearm where its circumference equalled that of the knuckles with the thumb, and a line drawn from this to the tips of the fingers, we could tell what length the arm would enter, supposing that the hand passed the sphincter with the due amount of pressure. In the average hand this line would measure ten or eleven inches. A much larger range of usefulness in diagnosis might be gained by the trained female hand, but it would be still better if, where there could be found a medical man of very small stature, the profession generally were to take advantage of his hand and arm in suitable cases.

Dr. CHAMPNEYS said that Dr. Carter's first case was of interest as a typical example of what had lately been called a septic *intoxication* (*vergiftung*) depending on the continuous absorption of a chemical poison, and ceasing when that cause was removed, the effect being proportional to the dose, as opposed to septic *infection* dependent on the absorption of a living element which

reproduces itself in the body, and therefore continues to develop itself although the original cause be removed, the effect being not proportional to the dose. He would ask Dr. Carter whether any examination of the fluid had been made, and if so, what, if any, bacteria had been found?

Dr. BANTOCK thought that irrigation might, as in the case of suppurating ovarian cysts, have saved much absorption fever. In one case under his care, he had devised a simple apparatus for the purpose, consisting of a large glass tube, which was inserted so as to reach down to the bottom of the cyst, and in which was a piece of elastic tubing containing some strands of worsted. One end of the tubing was immersed in a vessel containing a solution of sulphurous acid, and the other end hung outside the bed.

Dr. GODSON remarked that the first case related, which had as an out-patient been under his care at St. Bartholomew's Hospital, illustrated the difficulty of diagnosing between a retroverted gravid uterus and an extra-uterine foetation situated in Douglas's pouch. The displacement of the cervix forwards, causing retention of urine, was common to both. On account of the thickness of the abdominal parietes, and the early stage of the pregnancy, the fundus uteri could not be felt by bi-manual examination. In attempting to raise the swelling posterior to the cervix, presumed to be the fundus, very little force was employed, and the wisdom of this was manifest. Its resistance at once suggested a doubt as to the accuracy of the diagnosis.

Dr. GERVIS, in connection with the difficulty experienced in the differential diagnosis between retroversion of the gravid uterus and extra-uterine gestation in Dr. Carter's first case, referred to the aid to be derived from noticing the peristaltic hardening of the fundus of the retroverted uterus.

Dr. CARTER, in reply, said that the abdominal incision was not made under strict antiseptic precautions, though the cavity was frequently washed out with carbolic lotion. He had not examined the fluid from the abscess for bacteria. The foetor of the discharge only lasted for three or four days, and was corrected by the internal administration of calcium sulphide.

Report of Sixty-seven Cases of Uterine Distortion or Displacement treated during Seven Years at All Saints' Institution for Ladies Suffering from Illness, 127, Gower Street.

By Dr. GRAILY HEWITT.

This was a report of cases treated during seven years from May, 1872, to May, 1879. The patients were governesses, ladies dependent on their own exertions in various ways, wives of curates, &c. Age varied from eighteen to thirty. The cases comprised various forms of uterine displacement, associated often with great weakness, with a slow but disguised form of starvation, and more or less complete inability to walk or move about in the ordinary manner. In several cases the patients were bedridden, in others the power of locomotion was so impaired that employment had to be relinquished, in others the malady, though not so severe, had been found intractable. Great weakness, more or less inability to walk (uterine dyskinesia), and general mal-nutrition, were coupled with various degrees and forms of uterine distortion and displacement, causing pain on locomotion, sickness, menstrual irregularities, &c. The sixty-seven cases are resolved into two classes: A, forty-five of anteversion or flexion; B, twenty-two of retroversion or flexion. (A) thirty single, fifteen married; the severity of some of these may be judged of by the time required for treatment. One, a case of chronic invalidism, was under treatment fifteen weeks, at intervals spread over thirteen months. Another, whose most distressing symptom was obstinate sickness, was cured satisfactorily only after two years and a quarter, and spent twenty-five weeks in the institution. A completely bedridden case, with hysterical symptoms of long standing, was under treatment over one year; thirty weeks' in the institution. The cure was finally complete in these cases. Other similarly obstinate cases were mentioned. In one case of chronic anteversion, not long under treatment, circumstances prevented a return for further treatment, and after upwards of a year the affection proved fatal. (B) retroversion or flexion cases, fourteen single, eight married. One patient required fourteen weeks' treatment, the chief symptom being sickness. In another treatment was afforded at intervals during over two years; the uterus was much retroflexed, and the ovaries dragged downwards, locomotion being impossible at first; was finally fairly restored. One was a case of almost complete paraplegia, complicated by a spinal injury, but the power of locomotion was greatly affected for the

better under treatment. Of the whole sixty-seven, a very large proportion were restored to health and usefulness.

The treatment adopted was as follows:—The patients were kept recumbent in dorsal positions in cases of forward displacement, in semi-prone positions in cases of backward displacement. In most of the cases, semi-starvation being recognized as existing, sometimes of some years standing, food easily assimilable was frequently given, sometimes every hour. In case of sickness, nutrient enemata. Some cases required months of careful dietetic treatment to restore general strength. To restore the uterus to its proper condition, simple measures were employed. In some, positional treatment, such as prone or dorsal or knee-elbow position systematically and frequently, but, in most cases, other measures were necessary. In cases of forward displacement the cradle pessary, in backward the Hodge pessary, were employed. The sound was used at intervals to aid in restoring the uterus to proper shape, when the uterus was found hardened in its distorted shape. The sponge-bath, frictions of the skin, great care to prevent constipation, were often subsidiary measures. The principle adopted was to gently elevate the fundus uteri, to straighten the canal, to avoid what was likely to interfere with mechanical restoration, to nourish the frame, and harden the tissues by careful feeding, and thus harden and get the uterus in its normal shape. The cases offered (1) strong evidence of the connection between the health of the body generally and that of the generative organs, especially of the uterus, and they show that, if the strength be not adequately sustained during the growing age, the uterus is liable to suffer, and become weak and incapable of resisting the physical strain and tension of an ordinary active life. It was quite easy to trace in the early history of the cases this almost universal predisposition. These considerations showed that local uterine treatment cannot be expected to be permanently successful unless measures be taken to remedy the extreme general weakness. The physical change most evident in the uterine tissues in cases of prolonged insufficiency of food is softening and loss of tonicity. (2) A second general conclusion is the remarkable frequency with which these patients were affected with physical powerlessness, or incapability of locomotion, varying in degree. This peculiar symptom the author has termed "uterine dyskinesia." It was present in a marked form in almost all the cases, and in most was the prominent symptom. Physical exertion produces a temporary

exacerbation of the existing internal malady, gives pain, and is thus given up, hence a helpless invalidism in many cases. This physical inability is not imaginary or fanciful, though often erroneously so considered. (3) Another general remark is as to the frequency of sickness or nausea as a troublesome symptom and complication in these cases. The cases prove that distortions and displacements of the uterus when aggravated or increased, temporarily or persistently, by particular exertions are liable to produce an exceedingly troublesome form of sickness and nausea. This is a reflex symptom. A secondary effect is starvation. Later on the stomach itself becomes diseased, and the power of secreting gastric juice is more or less lost.

Dr. GERVIS, after expressing his sense of the value of Dr. Hewitt's paper, was inclined to differ from him on two or three points. He had seen cases in which the postural method had been adopted for many consecutive months, and in which the only result was impairment of the patient's health; and he certainly would fear that when the method was fully carried out, even if it benefited the position of the uterus, it would do so to the damage of the patient's general health, and so go far to neutralize the improvement obtained as regards the uterus. Dr. Hewitt spoke of leaving the pessary, when satisfied that it was doing its duty, without disturbing it for several months. Besides the possible dangers to the vagina which might accrue from leaving in a pessary for so long a period, it appeared to him (Dr. Gervis) that it should be removed at moderately short intervals, both for the sake of cleanliness and also for accurate investigation of the position of the uterus—a matter difficult to accomplish with the pessary still *in situ*. His own belief as to flexions was, that their importance very largely depended upon the amount of obstruction induced by them in the cervical canal, and that if there were no obstruction, it mattered little in which direction the uterus looked; that it was the obstruction, and not the displacement, which led to the endometritis and hyperplasia and resulting functional disorders. On the subject, as a whole, he was of opinion that a classification of cases of retroflexion, according to their behaviour on reposition, would be a great aid to their satisfactory treatment. He was accustomed to divide them into three classes: 1. Those which could be reduced by the sound alone, and after reduction remained in the normal position. 2. Those reducible by the sound, but falling back again when the

sound was removed. 3. Those which were irreducible. As regarded cases of ante flexion, he had for some time treated very few with pessaries, the possibility of giving adequate support to the ante flexed body by external means being very limited ; but acting on the principle that the patency of the cervical canal was of chief importance, he had treated these cases with the uterine bougies, and in many cases with very satisfactory results.

Dr. BARNES said the paper entirely justified the criticisms it had received. No one could practise gynæcology successfully who did not recognize the importance of flexions, and treat them. He thought that in Dr. Hewitt's paper rest was too rigidly insisted on. On the contrary, exercise and fresh air were often needed in these cases. Such a mode of life was not at all contrary to mechanical treatment of the flexion ; for a properly adjusted pessary gave rest to the uterus, and its good effect was aided by exercise. He thought that the value of intra-uterine medication was hardly enough recognized ; where there was strangulation of vessels, and resulting hyperplasia, intra-uterine medication was often most useful. He thought that to use the sound alone for reduction of a flexion was a bad practice ; that where the sound would correct a flexion, a pessary would do so. There were, however, a few cases in which the sound was required. He thought that the fixation of a flexed uterus by adhesions was much rarer than was supposed, and that where this was the case, the bands of adhesion might often be stretched by the use of a proper pessary. The nervous diseases of women caused by uterine diseases were most important. He had seen cases of insanity cured by putting the uterus right.

Dr. GERVIS added, that he entirely agreed with Dr. Barnes as to the use of the sound.

Dr. ROUTH said that in his opinion the most valuable part of Dr. Hewitt's paper was that which referred to the general hygienic treatment of cases of flexions. The starvation induced by the dyspeptic symptoms which the uterine lesion first originated (extending, as it often did, over years), left the patients so weak and exhausted, and so neuralgic, that their pains became agonizing, and they themselves confirmed invalids. Indeed, he fully concurred in what Dr. Barnes had said, that this variety of invalidism often assumed a mental character allied to insanity, and he was sure he had seen such cases in asylums, where he firmly believed the insanity was mainly referable to uterine disease of this variety,

and yet the cause had been overlooked. But he did not concur with Dr. Hewitt as to the advisability of keeping patients on their back in a sort of hospital imprisonment for so long. The very want of appetite and the hypochondriasis and the debility were all likely to be aggravated thereby. Moreover, other practitioners were not so fortunately circumstanced as Dr. Hewitt, in having a nice and comfortable All Saints' Institution, in which these poor invalids might be immured. Then a large number of these invalids were governesses. This class of ladies were peculiarly obnoxious to these flexions, because, and he said it advisedly, ladies who engaged their services, however kind in other respects, compelled their governesses to take long, lengthy and exhausting walks with their children, and so laid the foundation for these disorders. There was one other point upon which he ventured to differ from Dr. Hewitt, and that was in reference to the use of *cradle* pessaries for anteflexion. He had the misfortune, and possibly it was a great misfortune, of having never seen any good practical result from their use. Possibly, because these were cases not treated by Dr. Hewitt himself, but by some of his less experienced followers. The cases now mentioned by Dr. Hewitt, gave him (Dr. Routh) a direct contradiction, possibly because, like every other great inventor, he could do with his instrument, and succeed, where others, less gifted than himself, might fail. Whether this were so or not, at any rate he had seen very serious inflammatory complications follow the use of the cradle, and in one case, which he had only seen last week, it was so tightly jammed in the vagina, where it had remained seven months, that he could not pull it out with the finger, but was obliged to do it by main force with a midwifery hook, and thus to deliver the lady of her pessary. He thought that for cases of retroflexion, the Hodge's pessary would be found to suit in most cases; but for cases of ball-and-socket flexions, or anteflexions, nothing short of an intra-uterine pessary would in his opinion cure the patient. Whether one of the varieties he had brought before their notice on a previous occasion, or Dr. Wynn Williams's, were used, if proper precautions were employed, they did no harm, and might be kept in for five or six months, and the patient allowed to go about, and not invalided or confined in a hospital. One case of Dr. Wynn Williams's he had seen, with complete anteflexion, and who was bedridden, was cured by his instrument in three days. Possibly Dr. Hewitt would have kept this patient a hospital inmate for

months. Certainly the relief his (Dr. Routh's) instrument had given to some of his patients had most agreeably surprised him. Dancing, walking, running, had been made possible even while wearing it, and health restored to an extent the patients themselves stated they had not enjoyed for years ; but they breathed fresh air, and were made to eat and live well also.

On the motion of Dr. BANTOCK, seconded by Dr. ROGERS, the discussion was then adjourned until the next meeting.

OBSTETRICAL SOCIETY OF EDINBURGH.

Meeting, Wednesday, 28th January, 1880.

Dr. KEILLER, *President, in the Chair.*

I. Professor SIMPSON showed, through the kindness of Dr. D. G. Hamilton, a large sub-peritoneal fibroid tumour attached by a narrow pedicle to the anterior border of the summit of the uterus. It was found post-mortem in the case of a woman who had died somewhat suddenly from heart disease. The pedicle, as they would see, was just one such as an operator would delight in.

II. Professor SIMPSON showed also a uterus with an intramural fibroid of the size of an orange in the right and anterior wall, sent him by the courtesy of Dr. Inglis, of the Royal Asylum, Morning-side. The cavity of the uterus, when laid open, showed an adhesion at one spot between the anterior and posterior walls. Two small elevations could also be noted.

Basilysis: a Suggestion for Comminuting the Fatal Head in cases of Obstructed Labour.

By ALEXANDER RUSSELL SIMPSON, M.D., F.R.S.E.

Professor of Medicine and Midwifery and the Diseases of Women and Children in the University of Edinburgh.

Little more than twenty years have passed since British obstetricians began to waken up to the consciousness that they were behind their Continental brethren in their manner of reducing the size of the fœtal head in cases of labour obstructed from contraction of the pelvis.

Since the days of Smellie, little change had taken place in the method of carrying out the gruesome operation. Some

mechanical improvements had been effected in the make of the instruments. Early in the forties* Sir James Simpson furnished the profession with a modification of Naegele's instrument, which left nothing to be desired for easily and effectively perforating the cranial vault. Davis, Lyon, Murphy, Zeigler, and others had contrived various forms of instruments for fracturing or cutting and removing the bones of the calvarium, so as to reduce the head to the utmost limit. But that was all. The general teaching and practice in regard to the whole procedure might have been summarized in a single sentence—that after a sufficient opening had been made in the arch of the skull, and the flat bones had as far as possible been fractured and removed, what remained of the head must be dragged out by hook or by crook. The base of the skull—its hardest, most unyielding part—was left unaltered.

On the Continent, in 1829, the younger Baudelocque had proposed the use of his cephalotribe for crushing the head in all its parts. His proposal met with a ready response, and speedily cephalotripsy superseded the older forms of craniotomy throughout both France and Germany. In Britain, however, alike in London, Edinburgh, and Dublin, the cephalotribe was regarded with disfavour, and the idea of its use was treated with something like disdain.

Pupils of Sir James Simpson before the year 1858, may recollect how he would exhibit the bulky instrument of Baudelocque, and the still more cumbersome apparatus of Kilian; would tell how, in the only case in which he had tried to use it, the great machine had lost its hold; and would leave the impression on the class that the whole was a stupendous joke.

Churchill,† in his most popular of textbooks on midwifery, even in his edition of 1866, concludes his remarks on the cephalotribe by saying, "It would require unusual hardihood to venture upon the latter instrument in private practice in this country."

Murphy,‡ coupling the cephalotribe with Davis's osteotomist, concludes that "the *primâ facie* evidence seems against them;" and referring to a *cause célèbre* which he has detailed at length, he says, "Look at the cephalotribe, and ask yourselves, How

* On consulting the Minute-Book of the Edinburgh Obstetrical Society, I find that he showed it at a meeting held on April 26, 1842.

† "On the Theory and Practice of Midwifery." London, 1866.

‡ "Lectures on the Principles and Practice of Midwifery." London, 1862.

could that instrument be used in Elizabeth Sherwood's case? To me it seems impossible."

Ramsbotham* dedicates the last edition of his great work to Sir James Simpson, on a leaf which has on the back of it a motto from one of the Baudelocques, but he gives no hint that he knew of the existence of such an instrument as the cephalotribe.

A survival of this strange indifference to the drawbacks of the old proceedings will be found in Professor Leishman's† textbook, which gravely devotes a large part of its space, even in the third edition, to the discussion of methods that might well have been buried a decade ago in the pages of obsolete text books, and, after echoing Murphy's remark about Elizabeth Sherwood's case, discusses the construction of cephalotribes from a point of view purely theoretical.

When studying at various Continental schools in 1857-58, I was greatly impressed with the almost universal use of the cephalotribe. Busch at Berlin, Braun at Vienna, Scanzoni at Würzburg, like their colleagues at other universities, might differ in their views as to the best form of cephalotribe, but none of them thought of reverting to the older craniotomy procedures.

Having come to the conclusion that the Scanzoni instrument was the best, I went to his instrument-maker in Würzburg to procure one. He did not happen to have any in stock; but Professor Scanzoni was good enough to allow me to take away the one which he had had in his own possession for several years, and had employed in ten or a dozen cases. I brought it home to my uncle in July, 1858, and he at once recognized that it was free from some of the drawbacks of the cephalotribes he had previously seen. In the following October he was called out during the night to a difficult case. He carried with him his usual armamentarium, in which the cephalotribe had not as yet found a place. The result is recorded in his "Clinical Lectures."‡ After perforating the head in the usual way, and further comminuting it with a pair of Murphy's forceps, he left the case for some hours to the efforts of Nature. When he went back to the patient in the morning, expecting to apply the cephalotribe, the head was found to have already passed through the brim, and the labour was terminated without any further crushing of the foetal head. This case

* "Obstetric Medicine and Surgery." London, 1867.

† "A System of Midwifery." Glasgow, 1880.

‡ "On Diseases of Women." Edinburgh, 1872, p. 531.

having led, as he has explained in his Lectures, to the invention of cranioclast and the cranioclast, his attention was for a few years diverted from the use of the cephalotribe, and his mind was disposed rather to dwell upon its drawbacks.

In 1861 he showed to this Society a head which had been left in the cavity of the uterus after the trunk had been cut from it, and which he succeeded in extracting with great comfort with Scanzoni's cephalotribe.* This made him feel that he had not yet fully appreciated the value of the instrument. Soon afterwards he satisfactorily delivered with it a woman with a contracted brim; and as I had further proved the value of the instrument in two similar cases—one in the practice of Dr. Milne, the other in that of the late Dr. Andrew Inglis—he set himself to the construction of a cephalotribe which might prove itself as serviceable as Scanzoni's, and which might at the same time, by its smaller bulk and more easy management, commend itself to British practitioners. Hence the instrument which he exhibited to the Society in 1864, and with which the Fellows of this Society are sufficiently familiar.

In that or the following year I took it with me on a visit to Dublin, and showed the new instrument, among others, to Dr. Kidd. In 1866 that distinguished obstetrician read a communication on the subject to the Dublin Obstetrical Society,† and made suggestions for modifying the form of the instrument. In October of the same year, Dr. Braxton Hicks called the attention of London obstetricians‡ to the value of the cephalotribe, and proposed the use of a very serviceable modification of the instrument to which Simpson had given a British cast. From this point the Simpson cephalotribe, either in its original form or as modified by Kidd or Braxton Hicks, has come into more and more general use among British practitioners.

Curiously enough, in the meantime, Simpson's cranioclast had been finding its way into obstetrical practice in Germany. Professor Braun of Vienna, who is probably the most experienced, as he is certainly one of the ablest and most accomplished, of German obstetricians, recognizing the importance of the new procedure, modified the instrument with which Simpson had proposed to effect it. He enlarged the cranioclast, increased the curve of the

* *Edinburgh Medical Journal*, viii. 282.

† *The Dublin Quarterly Journal of Medical Science*, February, 1867.

‡ "Transactions of the Obstetrical Society of London," viii. 275 : 1866.

blades, and added a screw apparatus to the handles to secure the grasp. The results of his experience with the cranioclast were published by his assistant, Dr. Carl Rokitansky.* These contrasted so favourably with the record of cases terminated with the cephalotribe that very soon in other German schools cephalotripsy began to be supplanted by cranioclasm. The controversy there is not yet at an end as regards their relative value. In the discussion at the Gynecological Congress at Munich in 1877, Crédé, Olshausen, Schwartz, &c., spoke in favour of the cephalotribe, whilst Spiegelberg, Müller, Winckel, &c., stood up for the cranioclast. The rapidity with which the cranioclast was received into general favour in Germany may be gathered from the circumstance, that in Canstatt's "Jahresbericht" for 1874† the reporter, in recording the title of a paper on a new form of cephalotribe, quietly says, "Ist erledigt, wie alle cephalotriben, durch C. Braun's cranioclasten." In one of the most discriminating papers on the subject, Professor Fritsch‡ concludes that the cranioclast is the most universally applicable of all the instruments for crushing and extracting the foetal head.

My object, however, in the present communication is not to weigh the respective merits and demerits of cranioclasm and cephalotripsy, but to inquire whether there may not be another operative procedure which will supersede them both.

If we consider more closely the operation for lessening the foetal head, it is best to divide it into the three stages of—I. Perforation; II. Comminution; III. Extraction.

I. PERFORATION.

The opening in the presenting part of the calvarium may be effected by means of a trephine, straight or curved, such as is so commonly employed in Germany; or the perforator with a scissors or lance-head point may be employed, as with us. My experience with the trephine lets me understand why Schroeder says,§ "To us the use of the scissors-shaped perforator seems in general to deserve the preference." In every case where I have used Sir James Simpson's perforator I have easily succeeded in effecting as

* *Wiener Medicinische Presse*, Nos. 8-19. See Canstatt's "Jahresbericht," 592: 1871.
 † II. 812.

‡ *Der Kephalthryptor und Braun's Kranioklast*: Volkmann's "Sammlung," No. 127: 1878.

§ "Lehrbuch der Geburtshilfe," 342.

thorough a fracturing of the cranial vault as could be desired. In one case of not too contracted pelvis, where the fœtus was already some hours dead, after one or two fragments of bone had been lifted out of the margin of the large aperture, the head was found to be so collapsed as to allow of its being drawn through the pelvis by means of two fingers passed within the skull, while the action of the uterus was supplemented by the hands of an assistant pressing the fœtus from above. In the great run of cases, however, the diminution of the head is not sufficient to allow of its extraction through the canals, and it becomes necessary to have recourse to some kind of further

II. COMMINATION.

Ever since I was called to the Chair of Midwifery in our University, I have been in the habit of explaining to my students that there are five different methods by which the necessary diminution of the fœtal head may be attempted, which are represented by the five expressions—1, Craniotomy ; 2, Cranioclasm ; 3, Cephalotripsy ; 4, Cephalotomy ; 5, Transforation.

1. *Craniotomy*.—The older craniotomy procedures and apparatus could be very summarily dealt with. It was enough to demonstrate some of the hooks, crotchets, and forceps, and to indicate the rules for their employment drawn up by Sir James Simpson thirty or forty years ago. In a large class of students it is always possible that there might be one or two who would begin their professional career as assistants to practitioners who had not seen the need of furnishing themselves with more efficient implements. But the time is near when the whole category of them, with rare exceptions, will be laid to rest, perhaps to rust, in our obstetrical museums. For, if I may borrow a comparison from the rather too popular game of war, the crotchet, when compared with the cephalotribe or cranioclast, has about the same relative value for the purpose of saving the lives of poor women in labour as the old Brown Bess has, when compared with the Snider or Martini-Henry rifle, for killing their husbands in battle.

2 and 3. *Cranioclasm and Cephalotripsy*.—I confess I have not been able to come to a definite decision as to the relative value of the cephalotribe and the cranioclast. The inevitable elongation of the head in a direction opposed to that in which it is compressed by the blades, always seems to me a serious drawback

to the value of the cephalotribe. The extraction of the head in accordance with a scientific idea of the mechanism, seems in such a condition next to impossible. Hence I have been inclined always first to try the cranioclast, but have found that when the head was still very movable above the brim, the cephalotribe took hold and crushed it in a case where it was more difficult to get a satisfactory grasp with the cranioclast. At the same time, I believe the obstetricians are right who hold that the cranioclast is applicable, and may be successfully employed, in extracting the head through a pelvis too contracted to admit of the use of the cephalotribe. And I am sure that wherever the head has in the least become fixed at the brim, the cranioclast, which first fractures some of the basal bones, afterwards, during extraction, favours the natural mechanism and moulding of the head. As Wiener* hints, some of the failures that have been experienced in the use of the cranioclast have risen from the operator not having clearly apprehended the principle of its action, and closely followed Sir James Simpson's instructions for its employment. The adaptation of a screw apparatus, such as has been applied to it by Braun and Barnes, will doubtlessly make it more efficient both as a compressor and tractor; but in the employment of it I have always felt as if I had got a sufficient compression and traction power with a wet towel twisted firmly round the handles. It is important, in applying the soft towel or napkin, to fix a damp corner of it by a single turn round one of the handles, when the next turn, which passes round the other handle, gives as full a purchase for compression as could be desired. But whatever might be the relative advantages or disadvantages of the cephalotribe and the cranioclast, experience and science alike rendered it necessary to explain fully their construction, and the principles of their application and working, as the instruments by which, in the great proportion of impracticable labours, obstetricians could best accomplish the delivery.

4. *Cephalotomy*.—Of the different methods of cutting the head in pieces I could only indicate, 1st, that Belgian accoucheurs, following the lead of Van Huevel, had made frequent use of the *forceps-scie*, by which the head is sawn through from below upwards, and had reported results more favourable than those derived from the cephalotribe. But the instrument is very

* *Archiv für Gynäkologie*, xi. 413: 1877; reproduced in the *American Journal of Obstetrics*, xi. 184: 1878.

expensive, and has hardly met with any favourable regard out of Belgium. Then, 2nd, Dr. Barnes has proposed to reduce the head by passing round it the loop of a wire *écraseur*, and so cutting it through from above. But my impression regarding this suggestion has been, that in cases where it would be possible to apply a wire round the head of the child, it would be easier to reduce it with cephalotribe or cranioclast. The same remarks apply to the analogous *diviseur cephalique* of Joulin.* 3rd. The *labitum* of Von Ritgen, which has a sort of a knife fitted on the cavity of each blade of a pair of forceps, for the purpose of cutting the foetal head from either side, is an utterly unpractical instrument; and although I brought a specimen home with me along with Scanzoni's cephalotribe, it was rather as an obstetrical curiosity than with any idea that it could ever be used in practice, and also because it has a joint of quite peculiar character.

5. *Transforation*.—There remained the fifth method of operating, which seeks to effect the diminution of the head by drilling holes in the basis cranii, or, as Gueniot† expresses it, "sapping the sphenoid." It has always seemed to me that it is in this direction we must proceed to arrive at the ideal method of head-comminution.

Scientific midwifery demands a dissolution of the bones at the cranial base: can obstetric art accomplish it?

Soon after, Sir James Simpson proposed to attack the base by means of the cranioclast, one blade of which was to be passed within, the other outside, the perforated cranium, Professor Hubert of Louvain suggested to the Belgian Academy of Medicine that the base should be broken up from within. The essential character of his operation may be gathered from the designation which he proposed to apply to it, of *Sphenotresia*. I was acquainted with the history and the nature of the instruments which he invented for the purpose, and the rules for their employment, from his work on midwifery, which appeared in 1869.‡ I was impressed with his startling favourable statistical results, but was detained from inquiring farther into the merits of the operation by the rather complicated nature of the procedure and of the instruments

* "Traité d'Accouchements," p. 1080.

† Article "Craniotomie" in the *Dictionnaire Encyclopédique des Sciences Médicales*, xxii. 608.

‡ "Cours d'Accouchements," par le Dr. L. J. Hubert. Louvain, 1869.

by which it was to be carried out. Perhaps, in regard to the latter point, I form too hasty a judgment, and I think that I was all the more led to this conclusion from seeing the costly and cumbrous character of the apparatus of M. Guyon.

For in 1867 M. Guyon had conceived independently the idea of effecting the dissolution of the basis cranii by a process which he described as intra-cranial cephalotripsy, and had successfully put in practice at the Hôtel Dieu in the end of the following year. A case containing his apparatus I found in the collection of the late Sir James Simpson, now in my possession. They consist of a long rod or stilette, with a corkscrew point, which is first fixed in the centre of the most accessible presenting part of the skull of the child. Its movable handle has then to be removed, and the larger of two trephines having been slipped over it, the handle is readjusted to steady the disc, which is removed by the crown of the trephine. Through the large opening thus produced in the vertex, the finger is passed to explore the base of the skull and to guide the stilette to the sphenoid bone, which in its turn is transfixed. The smaller trephine is now slipped over the stilette, and worked so as to saw a disc out of the solid base. In this way the base may be drilled at two or more points. The head is now seized in the grasp of a pair of forceps, with blades as narrow and flat as those of the cephalotribe, but of slighter construction. The handles are very long, so as to give a leverage for compression, and are kept closed after application and compression by a spring ratchet. Clearly it was not an apparatus which one could advise a young graduate to add to his obstetric equipment; and I regret that it did not even occur to myself to make a trial of it until lately. The patient in whom I used it is a small, slenderly-built woman, with a universally and unequally contracted pelvis, having an external conjugate or Baudelocque diameter of $5\frac{1}{2}$ inches, and an internal conjugate diameter at the brim of $2\frac{1}{4}$ or $2\frac{1}{2}$ inches, the latter being estimated not only from measurements of the diagonal conjugate through the vagina, but of the true conjugate through the abdominal walls. In a previous labour, when Dr. Hart had tried to deliver her by turning, he had found it necessary to perforate the after-coming head, and only effected the extraction with great difficulty. On this occasion, when two holes had been drilled in the base with Guyon's perforator, and the head was compressed between the blades, I could hardly believe my senses when I felt the head coming through the

brim with the exercise of a force of only some five or six pounds. Dr. Hart, Dr. Caird, and Dr. Barbour, who were kindly assisting me, were equally astonished; and while Dr. Caird was administering chloroform, the others had an opportunity of satisfying themselves that the head advanced under the uterine efforts, the instrument, which they each held in turn, merely serving to guide it through the parturient canals. It was in reality only used as a tractor when the shoulders had to be dragged through the narrow brim. The head of the child, a male, has been left in the grasp of the forceps, that the Fellows of the Society may see how completely it has collapsed under a single squeeze.

In showing the preparation to the Society, I have ventured to prefix this brief historical sketch, because it has led me up to the inquiry, Can we not produce an effective dissolution of the bones at the base of the skull by some contrivance less costly and cumbrous? I believe the question will be answered in the affirmative. I am convinced that it should always be attempted, and I anticipate that soon in all such cases it will be accomplished. Until some better instrument be proposed, I have to suggest the use of a terebrator, which bears more resemblance to Blot's perforator than to any other implement. A long steel rod, furnished with a wooden handle, terminates in a point which has a screwing surface of half an inch in length. At this distance from the point, a broad shoulder will prevent the point from passing farther through the structures it is piercing. Along one of its sides the rod is excavated to receive a branch, which is jointed to the main stem about four and a half inches from the shoulder. When the instrument is being screwed into the bones, this will be buried in the rod, and enter with it. Pressure on its handle will then push it out, as the blade of a hysterotome is pushed from its sheath, and dilaceration of the cranial floor at the point of perforation must ensue. When the point is first being made to press into the base of the skull, the head may be steadied and fixed, partly by pressure from above, but still more by traction from below, made either with the finger or a pair of forceps grasping the edge of the perforation, which must, of course, first have been made in the vertex. That by such an instrument a very complete dissolution of the cranial base can be brought about, I have proved experimentally on the dead subject.

Howsoever the loosening and fracturing of this most resistant

part of the foetal head be effected, the statistical figures of M. Hubert* should encourage obstetricians to the effort to contrive a procedure and an instrument as simple and inexpensive as possible. Here is one of his Tables, comparing the results of the cephalotribe, the forceps-scie, and the transforator. :—

	Cephalotripsy 170	Forceps-scie 130	Transforation 53
Deaths.	Per cent. 41·17	Per cent. 22·30	Per cent. 11·32
Puerperal Accidents followed by Cure.	20·58	26·15	15·09
Natural Lying-in.	38·23	57·35	73·58

When we begin to put it in practice, it will be desirable to have a distinctive designation for the operation. I have headed the fifth paragraph with the designation “Transforation,” the name adopted by Hubert when he found that the word sphenotresia led to misconceptions as to the limits of the operation. But it will be convenient, at least, to have a designation that will be applicable to all kinds of disintegration of the base, whether the disintegrator reach it through an opening in the vault or be directly applied to the base, as in the after-coming head. The Greek words *βασις*, *base*, and *λυσις*, *loosing* or *disengaging*, lend themselves to an easy combination, with which we are familiar in the words analysis and dialysis. Perhaps the idea of a more complete dismemberment of the several bones might be conveyed by the interjection of the preposition *ανα* or *δια*; but the word would be unnecessarily lengthened, and the idea is sufficiently expressed by the simpler Basilysis. Cranio-basilysis it ought to be in full; but that the base of the cranium is referred to would be always self-understood in a chapter on delivery through a narrow pelvis.

Whatever designation we may give it, I feel sure that Basilysis is the operation of the future; and for effecting it I propose in the meantime the Basilyst I have described.

* See the “Cours d’Accouchements” of his son, M. Eugene Hubert, 243. Louvain, 1878.

III. EXTRACTION.

When the head has been comminuted by fracturing of the base, it may more safely than after any other form of comminution be left for expulsion to the natural powers of parturition. When, however, as is usually the case, some extractive force requires to be applied, it would be best to make use of the cranioclast. It may have already been applied after the perforation of the vault, to steady the head while the terebrator is doing its work on the basis cranii. After each perforation of the base the operator will naturally make traction with the cranioclast until he feels that the loosened and lessened structures are slipping through the brim.

Dr. KEILLER invited discussion, and availed himself of the opportunity, while occupying the chair, of recommending the attending Fellows to give the Society the benefit of their individual opinion and experience.

Dr. UNDERHILL had listened to Professor Simpson's Paper with great interest. The subject was one of much practical importance, and he thought it was greatly to the advantage of the Society that such subjects should be every now and again brought before it by competent hands, especially when, as in the present case, the author of the Paper had a new or improved method of dealing with these dangerous cases to put forward. He could not quite agree with Professor Simpson in his denunciation of the crotchet, for he at least had more than once succeeded in delivering with it when he had failed with some of the other instruments. The crotchet had the great advantage of working entirely within the foetal skull; and thus, while, if carefully handled, it avoided the risk of injuring the maternal parts, it at the same time did not add anything to the bulk of the mass to be dragged through the contracted pelvis. On the first occasion on which he used the cephalotribe (Matthews Duncan's) he screwed up too tightly, so that the button of the joint broke. He then tried the cranioclast, and found it work efficiently. On a recent occasion, in a rachitic pelvis with a conjugate of $2\frac{1}{2}$ in., he had attempted to bring down the head with the cranioclast, but found it slip. He delivered ultimately with the crotchet. Professor Simpson had brought the whole matter of the reduction of the foetal head before them very clearly, and described his own method ably. It certainly promised well, although they would probably have some difficulty in perforating the proper point in the base. If this were overcome, then the small

amount of compression Dr. Simpson described would probably suffice to deliver. One method not described by Dr. Simpson was that of Perfect and others, who first perforated and broke down the vault, and then, converting into a face case, delivered with the crotchet. In this way they extracted through pelves measuring $1\frac{1}{2}$ in. in their conjugate diameter. He thought that this plan might be more generally used.

Dr. A. D. L. NAPIER thought that while Guyon's instrument was perfect in the hands of Dr. Simpson, it might be otherwise in the case of country practitioners. He remembered one case at Fraserburgh, in 1873, where he attempted to apply forceps, but failed. He therefore perforated and used the cranioclast, but the woman died during delivery. The pelvis was contracted, both transversely and antero-posteriorly. Guyon's instrument would have been valuable in this case. In many cases, however, simpler instruments sufficed. Thus, when the cause of arrest at the brim was hydrocephalus, the perforator and crotchet were often sufficient. Dr. Simpson's plan was undoubtedly a valuable one, and he hoped his inventive ability would soon perfect the apparatus.

Dr. BALLANTYNE asked if Dr. Simpson was conscious when the trephine passed through the bone.

Dr. SIMPSON explained that this was the case.

Dr. GEORGE DICKSON had assisted in a case where the forceps slipped and the cephalotribe—Inglis's modification of Matthews Duncan's—broke. They then tried to perforate with a brace and bit, but failed. They succeeded in perforating with a large pair of scissors, and then extracted with the forceps. The mistake made was that of not perforating before applying the cephalotribe.

Dr. GORDON thought the fewer the instruments the better. It was alleged by many that the cephalotribe would break up any base; and if so, there was surely no need of new instruments.

Dr. KEILLER considered Professor Simpson's Paper a valuable one. The subject, indeed, was such an important one, and had been treated so fully on the present occasion, that the varied and practical points referred to demanded studious consideration before one could venture to speak of them at any length. He (Dr. Keiller) had endeavoured to follow the more special views expressed, and to these he would now very briefly refer. While Professor Simpson was reading his able Paper, he (Dr. Keiller) could not help thinking of the materials of a somewhat similar communication which he had in his possession, and which he ought to have read before the

British Medical Association when it last met in Edinburgh. While he therein had noted observations corresponding to and corroborative of some of those now made, the views he had been led to entertain as to the best modes of craniotomy procedure were by no means in accord with those advocated in the present Paper. He hoped, however, that the Basylisis efforts would, in Professor Simpson's hands, be soon turned to good account, although he greatly feared the cumbrous, if not dangerous, aspect of the instrument now exhibited. The first observation he would like to make was in regard to what Dr. Dickson and Dr. Gordon had just referred—viz., the importance of our instruments being kept as few and as simple as possible. There was seldom much good resulted from multiplicity, and far less from complexity, in respect to operative measures; for, as a rule, the more simple and handy our artificial aids in cases of emergency are made, the more useful and the more procurable they will in all probability be found. The obstetric practitioner was often enough awkwardly situated in regard to the ready access to suitable appliances to enable him to finish his required work, and his ingenuity was not unfrequently sorely pressed while endeavouring to discharge duties of the most anxious and most vital importance. Dr. Keiller, in referring to such cases, mentioned one of an extraordinary kind which he, along with the late Sir James Simpson, was specially summoned to give evidence regarding. In this case the practitioner in attendance was driven to use a common pair of cobbler's pincers as a craniotomy instrument, which unquestionably crude mode of procedure, together with its unfortunate results, led not only to legal investigation, but otherwise to very disagreeable consequences. It may be that the having recourse to such clumsy and apparently unsuitable appliances ought, as a rule, to be considered unjustifiable; but, nevertheless, if a qualified practitioner does his best to relieve suffering and save life by attempting to aid the inefficient efforts of Nature through the use of any likely measure within his reach, he is legally as well as morally entitled to the benefit of the doubt as to anything approaching to intentional criminality or punishable blame. Dr. Keiller and Sir James Simpson were at the time subjected to the reverse of mild criticism from certain quarters, for appearing in Court and giving their special evidence in this notable case; but they had done so entirely on the broad and fair enough ground now referred to, and in accordance with

which the Court authorities were led to adjudicate. He having personally put most, if not all, of our well-known embryotomy instruments to the test, because most trying test, that of clinical experience, could not agree in what had just been stated concerning the cephalotribe and other of our ordinary and well-proved craniotomy appliances, which, notwithstanding what had been said to the contrary, would not so readily be set aside, especially by the anything but handy-looking weapon to which Professor Simpson had directed their special attention on the present occasion. While expressing his faith in the power of a well-constructed and properly handled cephalotribe, which he had on many trying occasions tested, and as his exhibited series of cephalotripsy preparations—the Hibernian “army of martyrs”—fully proved, it was, he held, a mistake to imagine, as Professor Simpson seemed to do, that it was necessary to attack so as to completely crush the bones of the base of the foetal skull. This operation of so-called “basilysis,” this spearing and comminuting of parts which seldom or never seriously interfere with the termination of labour, seemed uncalled for. He had here and elsewhere often argued and demonstrated, that neither the bones of the base nor those of the face ever in marked pelvic contraction materially interfered with cephalotriptic or other craniotomy necessity. According to his experience, the base could usually be so managed, and the crushed head so extracted, by means of an efficient cephalotribe applied and used in accordance with the necessities of the case, and with a studied regard to the special mechanism of the labour, without having recourse to “basilysis,” or, indeed, to the extreme smashing power too often authoritatively advocated. He had as yet no reason to change his entertained views and teachings in regard to this most important practical matter, and confessed that the ponderosity and power displayed in some of our cephalotribe and other midwifery engines were such as to have often led him to remark that they might serve the very unequal purposes of “quarrying stones and crushing babies’ bones.” Professor Simpson had in his Paper so gone in for the cranioclast and cranioclasm against the cephalotribe and cephalotripsy, that he (Dr. Keiller) could not help saying that, knowing the history and the practice of both, he was much more disposed to look with much less favour, if not with great disfavour, on the former compared with the latter. He had been much disappointed in the operation of cranioclasm, and

mentioned his special objections to the cranioclast as a craniotomy instrument.

Professor SIMPSON thanked the Fellows for their kind attention and interest in his communication. He certainly sympathized with Dr. Keiller's wish that their instruments should be as few and simple as possible, and also in his statement that Guyon's instrument was cumbersome. That very consideration had prejudiced himself against the apparatus, so that, although he had shown it to his class year after year, the idea of using it had never occurred to him until this case. The point he wished to-night to fix home, was the necessity of aiming at the breaking up of the base of the foetal head. He, of course, agreed with Dr. Napier and Dr. Keiller as to there being a group of cases where this basilysis was unnecessary. He remembered, when taking his holiday in the English Lakes, conversing with a doctor there, who related to him a case where he had to perforate, and where the only instruments he had were in his pocket case. He had to perforate with a knife, and extract with a hook hastily manufactured by a smith who lived in the neighbourhood. The child was born alive, and survived. It was in the cases of contracted brim that comminution was imperative. When the brim was thus contracted, the problem before them was how to reduce the head so as to minimize the danger to the mother. With the cranioclast and cephalotribe they could undoubtedly pull the head through the pelvis. But very often this had to be done with a force exhausting to the practitioner's muscle and damaging to the mother's tissues. The head, more particularly when it was grasped with the cephalotribe, was always elongated in one diameter, and laceration of the maternal structures inevitably ensued. In this way the cephalotribe was specially dangerous. It was interesting to note, in the discussions as to the relative value of the cephalotribe and the cranioclast, the older practitioners of thirty or forty years' standing holding for the cephalotribe. It seemed as if, by long practice and frequent demonstration, they had got familiarized, mind and hand, to its use. It was really striking that an obstetrician of Karl Braun of Vienna's experience should pronounce so strongly for the cranioclast. Braun's opinion, and the Paper on his results with it by Karl Rokitansky, had led to its general adoption in Germany. Dr. Gordon seemed to think the cephalotribe a finality. They were a long, long way from that, as the many forms employed clearly showed. He remembered the unfavourable

impression as to Dr. Duncan's cephalotribe which he received on reading Dr. Duncan's paper, and which was confirmed by the condemnatory criticism of Dr. Macdonald and others who had heard it read. He had not imagined that any one had ever thought of employing it, and was not at all surprised to hear to-night that the only Fellows who had tried to deliver with it found themselves left in the lurch, and obliged to have recourse to other instruments. We had at present no perfect instrument—*i.e.*, no instrument such that the head crushed by it would mould itself to the pelvis. Then the cephalotribe, as Credé and others admitted, sometimes slipped. Few and simple instruments had been wisely demanded by Dr. Keiller. His own impression was that ultimately, with an instrument such as he had described to them, the base would be so comminuted that uterine effort alone would be sufficient to drive it through. Dr. Underhill had alluded to the tilting of the head so as to convert it, after the vault was broken down, into a face case. This he hoped would become an unnecessary experiment. Dr. Barnes had discussed the whole matter sensibly. In Osborne's case the child was dead, and the brim larger at one side of the promontory. They should always keep in mind that the manipulation necessary to bring about the face presentation was dangerous to the mother. This was avoided by the perforation of the vault and then of the base. This plan was, of course, equally applicable to the after-coming head.

Dr. KEILLER had seen Sir James Simpson apply his cranioclast unsuccessfully, and had done so himself, and mentioned a case where Sir James Simpson used the cranioclast, left the case, and then ultimately had to use the cephalotribe. Professor Simpson had spoken of the older practitioners who clung to the cephalotribe as an instrument from their long experience of it in practice and tutorial demonstration. He wished to identify himself with these, as partly explaining his adoption of the cephalotribe as the instrument to be used for delivery in contracted brim. He had not, however, become wedded to the practice he referred to as sound from mere class-room attempts at demonstration, but rather from bedside observation and varied operative manipulation, without which instrumental notions, however novel or ingenious, were comparatively of little practical avail. He (Dr. Keiller) greatly preferred being guided by personally testing the practical value of instruments than by being led by mere literary statements.

Obstetric Summary.

Intractable Vomiting of Pregnancy, treated by the Inhalation of Oxygen.—Dr. Pinard relates the case of a patient, aged twenty-two, pregnant for the first time. Vomiting began in the first month, and continued with great severity, all food being returned, and the patient in consequence becoming very weak and emaciated. Ipecacuanha, citrate of magnesia, ether spray, hypodermic injections of morphia, were all tried without any effect. After the vomiting had lasted about seven weeks, the inhalation of oxygen by the Limouzin apparatus was tried. The first day of this treatment ten litres were inhaled, the second day twelve litres, and fifteen litres the third. From this time the vomiting ceased, and no more treatment was necessary. The patient rapidly recovered her health, and went to the full term of pregnancy. It should be added, that in the early part of pregnancy, the uterus was retroverted, and, Dr. Pinard remarks, many authors would look upon this as the cause of vomiting. But the retroversion was spontaneously reduced before the oxygen was resorted to, and the vomiting continued as before. The association therefore of the vomiting with retroversion was here nothing more than a coincidence. Dr. Pinard was led to prescribe the oxygen inhalation by the facts made known by Professor Hayem, showing the beneficial effect of oxygen inhalation in the vomiting of chlorotic patients. Whether in this case the vomiting ceased spontaneously, or in consequence of the oxygen, the author points out, the future only can show; and he hopes that others will use the remedy, and publish their results.—(*Annales de Gynécologie*, Mai, 1880.)

Amputation of the Procident Arm for the purpose of facilitating Version.—Dr. Pénard (of Rochefort) writes on this subject, and to his paper is added a postscript by Dr. Pinard, of Paris. The authors refers to the statements on this subject in systematic treatises on midwifery, and though fully agreeing that such a proceeding should never be thought of while there is the least spark of life to be perceived in the child, yet, considered in relation to cases in which the child has been long dead, he thinks it has been unjustly condemned. He considers that there are cases in which version is impracticable, and where embryotomy seems called for, and yet in which, after the procident arm has been

removed, turning can be performed ; that therefore, in such cases, amputation of the arm may be looked upon as a substitute for embryotomy. Dr. Pinard adds a theoretical explanation of the view which Dr. Pénard's experience has led him to form. He supposes that there are cases in which, if the scapular projection is entire, the superior border of the shoulder may become fixed against the lower border, or the posterior surface, of the symphysis pubis. In such cases, if, by amputation of the arm, the projection of the shoulder is destroyed, the trunk will readily rise, and the lower extremity can be brought down. He states that he has known many times MM. Pajot and Stoltz perform version in cases in which it was previously thought impossible, after simply amputating the upper extremity.—(*Annales de Gynécologie*, Decembre, 1879.)

Note on the Disposition of the Placental Vessels.—Dr. A. Delore calls attention to the mechanical conditions of the placental circulation. He says that the placenta is normally in a state of permanent erection, but the blood pressure is feeble, and the vascular walls can support it. We have no physiological experiment which will tell us what this pressure is. It is diminished by the arrangement of the uterine sinuses, which are probably designed for this purpose. But there is another pressure, which, although not permanent, is yet frequent and physiological: it is that which is produced in the great vessels during effort. If the placental vessels had not a special disposition to withstand this shock, few pregnancies would reach term, for there are very few women who remain motionless for the nine months. The explanation, which seems to the author rational, is this. When the blood in the uterine sinuses receives the sudden pressure caused by an energetic effort, it traverses the numerous orifices of the circular sinus, and arrives at the foetal surface of the organ. There, its pressure becomes divided into two. Part is directed against the uterine face: part is exerted against the wall formed by the chorion and amnion; it bulges inwards the side of the amniotic cavity, the augmented tension of which reacts in its turn upon the placenta, and help to apply it more exactly to the uterus. Thus the danger which might result from sudden shock is prevented. The weakest point is at the periphery, where the sinuses open into the circular vein of Meckel, and it is there that the majority of hæmorrhages during pregnancy take place.—(*Annales de Gynécologie*, Mars, 1880.)

Gynaecic Summary.

A New Means for the Prevention of Hæmorrhage in Operations upon the Female Genitals is the title of a long Paper by Professor Courty, of Montpelier. This remedy is the injection of hot water—that is, water as hot as the patient can bear it, practised several hours or several days beforehand, according to circumstances. The usefulness of such injections, he thinks, might be inferred beforehand, from the curious effect in stopping uterine hæmorrhages, of heat applied, more or less near the uterus, in the lumbar region, or the vagina, &c. He refers, in illustration, to the writings of Chapman, Atthill, Gueneau de Mussy, and Emmet. He has now seen enough in his own practice, and that of others, to prevent him from having any doubt that hot-water injections will temporarily, if not permanently, arrest uterine hæmorrhage. He looks upon it as a very natural transition from a hæmostatic action to infer a “decongestive.” He has therefore often recommended hot-water injections in diseases accompanied with congestion, and with satisfactory results. From this he was led to recommend their frequent and prolonged use as a preparatory treatment for operations likely to be attended with hæmorrhage. He has thus used it before performing incision of the cervix, removal of, or plastic operations upon, that part, vesico-vaginal fistula, &c., each time with the result, he believes, of much greater facility in the performance of the operation, from the absence of the oozing which often obscures the surgeon’s view of the parts he is dealing with, as well as with much less actual loss of blood. He does not think it is necessary for the patient, in using these injections, to assume the inconvenient posture usually recommended—*i.e.*, the pelvis raised, shoulders low, thighs flexed, &c.—but considers them equally efficient if the patient uses them on an ordinary bidet, and with a syringe capable of containing a good volume of fluid, and of being introduced well up into the posterior cul-de-sac. These latter points he looks upon as of great importance.—(*Annales de Gynécologie*, Mai, 1880.)

Castration on account of Retroflexion of the Uterus, by Dr. E. Börner.—The author properly defines the meaning of his title as being the removal of both healthy ovaries, in order to bring about the cessation of menstruation, and the retrograde metamorphosis of the uterus, and so to cause the sufferings caused by retroflexion to disappear. He reports the case of a patient who was twenty-

six, unmarried, and had suffered from the retroflexion for seven years. She had severe dysmenorrhœa, which, from the absence of all appearances of inflammation, was believed to depend solely upon the flexion. She had been treated, both generally and locally, by many medical men without benefit. Division of the cervix, with subsequent introduction of thick bougies, continued for a long time, only once produced relief to the menstrual pain. Treatment by intra-uterine pessaries failed on account of the great sensitiveness of the uterus, and vaginal pessaries could only be tolerated in the inter-menstrual period. During menstruation there were severe hysterical convulsions, and very painful uterine contractions, which would gradually extend to the whole muscular system. There was complete loss of sleep, and all nutriment was refused, and this lasted nearly a week each time. The patient's strength was the more enfeebled by her having resorted to morphia, so that any slight irritation brought on divers hysterical symptoms. In this state of things castration was resorted to. The incision was made in the linea alba. The ovaries were not adherent. The patient recovered from the operation, leaving her bed four weeks afterwards. Menstruation should normally have occurred on the sixth day after the operation. It actually happened two days afterwards, but lasted four days only. The next three months passed without either hæmorrhage or the customary pains. The following month there was "a trace hardly worth naming," and the accompanying pains were reduced to such a minimum that occasional rest in bed during one or two days was enough to relieve them. The two following months there was no hæmorrhage. The author therefore considers that the result aimed at by the operation was completely attained. The symptoms occasioned by the retroflexion (sacral pain, &c.) gradually went away, although no care was taken to correct the deviation. The author sums up the position of this operation among the modes of treatment suitable for flexions, as follows:—Deviations of the uterus accompanied with severe suffering may form an indication for castration, if every kind of treatment directed to the causal conditions of the flexion has been tried and found without benefit, and some contra-indication is present which prevents mechanical treatment from being tried, and yet relief is urgently called for. Among the contra-indications for mechanical treatment (which therefore may be spoken of as indications for castration) are certain kinds of inflammation—peri- and parametritis with effusion, or acute inflammation of the uterus itself—

and bleeding, unless this has arisen from venous congestion the result of the flexion. Also certain kinds of adhesions, such as render reposition difficult and painful; and abnormal sensitiveness of the displaced uterus to mechanical interference.—(*Wiener Medizinische Wochenschrift*, Nos. 19 and 20, 1880.)

BOOKS, PAMPHLETS, &c. RECEIVED.

“Martin’s Atlas of Obstetrics and Gynecology.” Translated and edited, with additions, by Fancourt Barnes, M.D. (H. K. Lewis.)

“Therapeutics of Gynecology and Obstetrics, as set forth by distinguished Contemporary Specialists.” By William B. Atkinson, M.D. (Bailliére, Tindall, and Cox.)

“Lessons in Gynecology.” By William Goodell, M.D. (Bailliére, Tindall, and Cox.)

“Transactions of the American Gynecological Society.” Vol. IV. for 1879.

“Food and Feeding.” By Sir H. Thompson.

“Time of Conception and Duration of Pregnancy.” By George J. Engelmann, M.D. (Reprint from the *St. Louis Courier of Medicine*.)

“Craniotomy and its Alternatives.” By R. J. Kinkead, M.D. (Reprint from the *Dublin Journal of Medical Science*.)

“Die Entwicklung der Puerperalen Infection. Von Prof. Spiegelberg in Breslau.” (Separatabdruck aus der *Berl. klin. Wochenschrift*.)

“On the Relation of the Medical Profession to the Trade Interests of the Materia Medica, and a Note on Pepsin, with a Reprint of a Paper on a Ready Method of Testing Pepsin.” By Edmund R. Squibb, M.D., Brooklyn.

“Ueber die sogenannte Garrulitas Vulva.” Von Hermann Löhlein. (Separatabdruck aus *Zeitschrift für Geburtshilfe und Gynäkologie*.)

“Prolapse of the Ovaries.” By Paul F. Mundé, M.D. (Reprint from Vol. IV. *American Gynecological Transactions*.)

“The Prognosis of Cæsarean Operations.” By William J. Lusk, M.D. (Reprint from the *American Journal of Obstetrics*.)

“The Justo-minor Pelvis.” By William T. Lusk, M.D.

Communications, letters, &c., received from Mr. J. B. Sincock, Bridgewater; Dr. Elder, Nottingham; Mr. Legge, Derby; Dr. Percival, Northampton; Dr. Leith Napier, Dunbar, N.B.

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THE
OBSTETRICAL JOURNAL
OF
GREAT BRITAIN AND IRELAND.

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No. XC.—AUGUST 15, 1880.  
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Original Communications.

A CASE OF IMPERFORATE HYMEN.

By HENRY GERVIS, M.D.

CASES of imperforate hymen are sufficiently uncommon to make any that occur worthy, I think, of record. The following has recently been under treatment in hospital:—

S. N., æt. sixteen, was admitted into St. Thomas's Hospital, March 9, 1880. She had never menstruated, nor had she had any menstrual molimina; but on the 26th of February began to feel pain in the lower abdomen, especially on the left side, which continued up to the date of her admission. On March 6th, in the evening, she found herself unable to pass water, but during the night some dribbled away, and this continued until the 8th, with a good deal of additional pain in the lower abdomen and back. On the 8th she saw a medical man, who drew off the water, but, telling her she had a tumour, advised her to seek admission into a hospital. She was admitted on the 9th, and from that date to the 11th, when I first saw her, the bladder was kept empty by the catheter, and with rest in bed she had much less pain, but was a little feverish and thirsty, her temperature, on the morning of the 11th, being $99^{\circ}4'$. On examination, the entrance of the vagina was found occluded by a membrane, rendered tense and bulging by the pressure of retained fluid. There was also bulging into the rectum and such compression of the urethra as to lead to the difficulty in micturition complained of. But there was no swelling of the lower abdomen or detectable uterine enlarge-

ment, though some tenderness on pressure above the symphysis. I decided to remove a portion of the fluid by the aspirator, repeating the process once or twice before finally and fully dividing the hymen. After withdrawing about ten ounces of dark, treacly fluid, to the marked relief of the tension, I left Mr. Ballance, the Resident Accoucheur (being myself compelled to keep an appointment elsewhere), to put some cotton wool and collodion on the puncture, and retain it by a suitable pad before taking her back to her bed. After I left, it appeared that the girl began to cry, and the crying put sufficient strain on the hymen to make it evident that it would rupture from the puncture. Mr. Ballance, therefore, very judiciously decided to complete the operation at once under the carbolic spray, after putting the patient under the influence of chloroform. After turning on the spray, he made a vertical incision through the hymen, and about thirty ounces more of the same fluid were evacuated. The vagina was then washed out with a carbolized lotion, and plugged with strips of lint soaked in carbolic-oil; externally was placed a pad of salicylic wool, protected by gauze, and a morphia suppository was introduced into the rectum. In the evening the vagina was again washed out with carbolized water, (1 in 30), plugged and redressed and the urine drawn off. March 12, vagina again washed out. She was three times sick, and had one slight rigor. T. 99°. In the evening she was quite free from pain and had had no return of either sickness or shivering. The vagina was again syringed out and urine drawn off. On the following day she was put on quinine, and by the 20th was walking about the ward quite well. But unfortunately the vaginal plugs had not been employed sufficiently long to prevent reunion, and on examining her on April 1 I found that the edges of the incision had united. Chloroform was therefore given, and I divided the membrane crucially, applying perchloride of iron to the cut edges—both as a styptic and antiseptic, and to lessen any further danger of adhesion. The vagina was plugged with strips of oiled lint. There was a little meconium-like mucus in the vagina, but in trifling amount. On looking at the os uteri, through a speculum, it was abraded, and the cervix the seat of some endo-cervicitis. A Sims's medium-sized dilator was introduced, and changed for a larger one in three days. Six days after the operation a small Fergusson's speculum was easily introduced; the os continued granular, but less so; the vagina showed some slight patches of inflammation on

its surface. By the end of a fortnight the edges of the crucial incisions were quite healed ; the vaginal entrance readily admitting a speculum, and the os and vagina healthy.

The points of interest, I think, in connection with this case are two : first, that there was no distension of the uterine cavity, although the vaginal bulging was extreme. And this distension has been spoken of by some writers as invariably occurring after the vagina has become distended ; and as producing a fiddle-shaped swelling (the constriction corresponding with the cervix, with the distended uterus and vagina above and below), characteristic of the swelling due to retained menses. And secondly, the impunity with which an immediate operation can be performed under the spray, would certainly lead me in future to always adopt that method ; the majority, at all events, of the deaths which have been recorded as occurring after the immediate operation having resulted from septic peritonitis, the risk of which would be minimized, if not wholly removed, by operating, as in the above case, with aseptic precautions.

CLINICAL EXPERIENCES OF PUERPERAL FEVER.

By A. D. LEITH NAPIER, M.D.

Fellow Obstetrical Society ; Member Edinburgh Medico-Chirurgical Society, &c. &c.

(Continued from page 413.)

XXVIII. Requested, on 29th July, 1875, to visit Mrs. G——. *History* : Before marriage she was of a very sensitive and excitable temper, but never showed any symptoms of insanity. None of her relatives have been insane ; during her pregnancy she was very well in every respect. She was delivered, after an easy labour, on 25th July, at 11 P.M. ; for the first day-and-a-half the lochial discharge had been very profuse, but on the 28th and 29th the napkin was unstained. Visited at 9 P.M., when I found her sitting up in bed, moaning fitfully, alternately rubbing and wringing her hands, laughing loudly, and talking incoherently by turns. Milk was plentiful, and micturition natural. I prescribed two scruples of chloral hydrate in syrup every three or four hours, and suggested, that in event of abdominal pain, a warm fomentation should be applied. 30th July.—Coherent and sensible ; slept after second dose of chloral. Discharge in very scant quantity ;

ordered eight grains of calomel. 3 Ist.—Lochia natural ; has been well purged. 2nd August.—Cured.

XXIX. Mrs. William Smith, of Buckie, lately come to reside in Fraserburgh, was delivered by me, after a very easy labour, on 26th August. 28th August.—Temperature, 103 ; pulse, 100 ; has headache ; lochia scanty ; bowels unopened since delivery. 29th August.—Temperature, 100 ; pulse, 98 ; lochia and milk free. 30th.—Pulse, 80 ; feeling very well. 31st.—Had been up yesterday ; visited 1.30 P.M. ; temperature, 101·5 ; pulse, 92 ; tongue moist ; bowels moved freely with castor-oil ; has flatulence, and very slight abdominal tenderness yesterday evening and to-day. 9.30 P.M.—Temperature, 100·5 ; pulse, 92. 1st September.—Was slightly incoherent throughout last night ; lochia for first time has disagreeable odour. 2nd September, 10 A.M.—Temperature, 98·5 ; pulse, 82 ; had mild delirium through night ; tongue moist ; since last evening spontaneous diarrhœa ; from that time no abdominal pain ; yellowish white discharge in good quantity ; prescribed pil. plumbi c. opio. 10 P.M.—Temperature, 100·5 ; pulse, 84 ; diarrhœa checked ; has taken some food during day. 3rd September.—Temperature, 99 ; pulse, 78 ; slept well last night ; discontinued pills. 4th September.—Temperature, 98 ; pulse, 80 ; discharge natural ; no unusual smell ; taking food fairly ; been up to-day. 9th September.—Perfectly recovered.

XXX. On 16th September, Mrs. Joseph W——, Broadsea. Primipara ; was attended by me in child-bed ; labour, which was tedious, was eventually terminated by forceps. *History* : Parents both living ; mother, and other near relatives, very subject to asthma. Mrs. W—— had for a considerable time, prior to her accouchment, looked forward to it with dread ; was “certain she would die,” and was often in great mental distress at the prospect. For at least twenty-four hours before labour her pulse was accelerated, and from twelve hours after was never less than one hundred per minute, otherwise no untoward symptom was noted till 18th September, when her breathing became quickened and spasmodic. Owing to the family history of asthma, natural temperature, and the patient's mental agitation, this did not awaken suspicion. A mustard blister was applied to the epigastrium, and nitrate of potash, cannabis indica, and ipecacuan. prescribed. 19th September.—Breathing relieved ; pulse still fast and irregular ; powders of quinine and opium ordered.

20th September, 11 A.M.—Temperature, 101; pulse, 100; has slight tenderness over uterine region on pressure; little appearance of milk in breasts; since yesterday afternoon there has been a faintly disagreeable lochial discharge, lightish in colour; to apply mustard poultice, and inject warm solution of Condyl's fluid per vaginam. 6.30 P.M.—Temperature, 102; pulse, 108; respiration, 25; less abdominal tenderness; has been sleeping; is not so thirsty. 10.15 P.M.—Temperature, 102.5; pulse, 108; breathing deep and long; feels easy. 21st, 11 A.M.—Temperature, 102; pulse, 108; abdominal distension; whitish lochial discharge. The whole of the abdomen was ordered to be painted with lin. iodi. the vaginal douches to be continued, the opium and quinine to be omitted, and brandy to be given liberally. 7.40 P.M.—Temperature, 102.5; pulse, 120; respiration, 25. Bowels, which have been previously constipated, moved with great pain before defecation; feeling better since; continue abdominal fomentation, and brandy and beef-tea *ad lib.* 22nd.—Rigor at 5.30 A.M.—Visited 6.15 A.M.; temperature, 103.5; pulse, 120; very weak; respiration, 24; sighing; distension of and slight pain in belly. The abdomen was now blistered with liq. epispasticus. 11.5 P.M.—Pulse, 120; skin moist; feels easy. At this visit I saw a sheet which had been put into the bed clean two days before; it was stained with a large quantity of red discharge. 8.10 P.M.—Temperature, 105.5, pulse, 120–140, very weak and irregular; respiration, 36; sighing; very laboured. Very slight pain over abdomen on pressure. Has taken a cup of tea and a hard biscuit with relish. 23rd September.—Died at 6.30 A.M., very quietly, with no pain, and perfectly conscious.

XXXI. Mrs. J. S——, Duke Street, Fraserburgh, was delivered by Mrs. S——, midwife, on Tuesday, 28th September, at 6 A.M. This midwife had on 18th September given Case XXX. an injection, she had attended no other case since 20th September. Had a rigor about 6 A.M. Visited in forenoon, when I found temp. 104, pulse 100, face flushed, no milk, free lochia, slight pain on pressing hypogastrium. Patient had been taking a little food, the bowels had not been moved since delivery; prescribed a dose of calomel and a mixture containing nitrate of potash, sulphite of soda, sweet spirits of nitre, and morphia. 9.30 P.M.—Temp. 100.5; pulse, 92. Lochia in good quantity. 1st October, 11 A.M.—Temp. 100.5; pulse, 92. Milk appearing. Calomel has not acted, ordered enema. 9.30 P.M.—Temp. 102; pulse, 88; free motion

No.	Description of Patient.	Date of Attendance.	Attended in labour by	Special or predominant symptoms.	Variety and time of invasion after delivery.	Result.	Remarks.
1	Delicate, fragile, multipara	1874 Oct. 30	Dr. Napier	Ovarian	1 day	Cured	{ Previously subject to post-partum hemorrhage.
2	Hysterical, primipara	Nov. 3	Do.	General peritonitis	Auto-partum	Died	Instrumental delivery.
3	Delicate, multipara	Nov. 6	Do.	{ Endocarditis or } septicæmia	2 days	Died	Easy rapid labour.
4	{ Strong, stoutly built, mul- } tipara	Nov. 11	Mrs. W., midwife	Peritonitis, &c.	Uncertain	Died	Visited by me after death.
5	Primipara	Nov. 12	Do., and Dr. Napier	Septicæmia	Sudden, 5 days	Died	Rather difficult, non-instrumental.
6	Healthy, multipara	Nov. 1	Mrs. S., midwife	Phlegmasia dolens	6 or 7 days	Cured	Single, and lasted about a month.
7	Healthy, 2nd labour	Nov. 13	Do.	Ovarian	Uncertain.	Cured	{ Delivered about three weeks when visited by me.
8	Delicate, multipara	Nov. 18	Do.	Ovarian	Uncertain, gradual	Cured	{ Metritis preceded the pneumonia, but was removed.
9	Primipara	Nov. 26	Mrs. W., midwife	Pneumonia	2 days	Died	Symptoms mild throughout
10	Phthisical, multipara	Nov. 30	Dr. Napier	Metritis	7 days	Cured	{ Labour protracted, forceps, died from collapse, or thrombus of thoracic duct.
11	Primipara	Dec. 8	{ Mrs. K., midwife, } and Dr. Napier	General peritonitis	3 days	Died	{ Case probably terminated from thrombus of thoracic duct.
12	Nervous, multipara	Dec. 16	Mrs. M., midwife	Septicæmia	2 days	Died	Rather tedious labour, forceps.
13	Fairly healthy, multipara	1875 Jan. 24	Dr. Napier	Metritis	28 hours	Cured	Tedious labour, forceps.
14	Primipara, small and fragile	March 5	{ Mrs. S., midwife, } and Dr. Napier	Ovarian	7-10 days	Cured	{ Abscess formed in right ovarian region, and bursting discharged per vaginam.
15	Nervous, multipara	March 6	{ Mrs. S., midwife, } and Dr. Napier	Ovarian	6 days	Cured	{ In labour for two days, forceps, delivery easily effected.
16	Primipara, syphilitic	April 29	{ Mr. McRobert } and Dr. Napier	Peritonitis	6 days (?)	Died	Non-instrumental.
17	Rather nervous, multipara	1874 Dec. 7	{ Mrs. M., midwife, } and Dr. Napier	General peritonitis	Not ascertained	Died	Visited by Dr. Grieve on 17th.
18	Hysterical, primipara	Dec. 14	Mrs. M., midwife	Vague	2-3 days	Cured	{ Labour very difficult, forceps applied for upwards of two hours.
19	Hysterical, multipara	1875 Feb. 8	Dr. Grieve	Metritis	Gradual, 2 days	Died	Instrumental delivery.
20	{ Do., in bad health before } delivery, and labour	March 20	Mr. Duncan	General peritonitis	Gradual, uncertain	Died	Child born before doctor's arrival.
21	Nervous, multipara	April 8	Mrs. H., midwife	Ovarian	3-4 days	Died	Very difficult, forceps, at brim.
22	Multipara, healthy	May 27	Dr. Grieve	Metritis	{ Sudden, 1 day } { Very slow, unkd. } { symptoms on } { 14th July, 17 days }	Cured	{ Placenta only removed, labour easy and rapid, terminated before doctor's arrival.
23	Strong, primipara	July 12	Dr. Napier	Metritis	4 days	Cured	Labour easy and rapid.
24	Delicate, multipara	June 27	Do.	Septicæmia	3 days	Cured	
25	Delicate, multipara	July 12	Do.	Typhoid and ovarian	Gradual, 6 days	Cured	
26	Healthy, multipara	July 10	Mrs. H., midwife	Metro-peritonitis	4 days	Cured	
27	Healthy, and labour	July 21	Dr. Napier	Metritis	4 days	Cured	
28	Very hysterical, and labour	July 25	Mrs. S., midwife	{ Endometritis (?) } and mania	3 days	Cured	
29	Healthy, multipara	Aug. 26	Dr. Napier	Typhoid	2 days	Cured	
30	Very nervous, primipara	Sept. 16	Do.	Septicæmia	2 days	Cured	

TABLE II.—*Local or General Symptoms in 31 Cases.*

Prominent Symptoms.	Number of Cases.	Cured.	Died.	Remarks.
Typhoid, or ovarian } (including pelvic cel- lulitis) }	9	8	1	
General peritonitis .	4	0	4	
Metritis, peritonitis, or } metro-peritonitis . . }	10	7	3	{ One case doubtful, as mania com- plicated it.
Septicæmia, and endo- } carditis }	6	1	5	{ Endocarditis is included here, as it is believed to be caused by the blood-poisoning.
Pneumonia	1	0	1	
Phlegmasia dolens .	1	1	0	
	31	17	14	Mortality greater in early cases.

TABLE III.—*Invasion in 31 Cases.*

	Cases.	Time.
Average in	21	Three days and thirteen hours.
Protracted in . . .	2	One about three weeks, another seventeen days.
Ante-partum . . .	2	
Unaccounted . . .	6	These were uncertain, or not ascertained.
(Rapidly developed in 2 of above 21. One in 28 hours ; another in 36 hours.)		

of bowels with enema. 2nd October.—Temp. 100 ; pulse, 84, slight pain on hypogastric region. Use turpentine stupes, there-
after continue poultice, which has been applied continuously since
30th September. Been thrice at stool. 3rd October, 10.15 A.M.—
Temp. 98 ; pulse, 80. No pain in abdomen ; lacteal secretion scanty ;
slept fairly well previous night. 4th October.—Temp. 99, pulse 80.
Discharge, almost colourless, in good quantity. Tongue clean ;
thirsty ; had a little pain during night in left side. 5th October.
—A “creeping” between 7 and 8 A.M., and afterwards headache,
which now (12.50) is better. Temp. 99.3, pulse 80. Milk more

plentiful, does not complain of any pain. 6th October, 12.45.—Pulse 84. Is thirsty, fair quantity of discharge, left ovarian region is tender to touch, paint it with iodine. 7th October.—Pulse 80, feels comfortable. 9th October.—Pain over left ovarian region which is markedly swollen. 11th October.—Pulse, 80; much better; swelling decreased; sitting up. From this date recovery was rapid, and, in the course of a few days, the patient, though not strong, was quite able to resume her household duties.

At the present time it seems necessary to flank my observations regarding the foregoing cases with all due care, and establish my position as securely as is possible. For this end I would ask, Is there such a fever as puerperal fever? I assert that there is; because—(1) At certain times large numbers of parturient women are attacked with fever followed by secondary evils. (2) This fever is not solely dependent on septic material conveyed manually. (3) It is not dependent on erysipelas. (4) It is not ordinary septicæmia or pyæmia. (5) It is communicable by contagion. (6) Like other fevers (*e.g.*, typhus, typhoid, scarlatina) complications frequently appear, varying in their nature, as the constitution of the patient and the surrounding hygienic arrangements may vary. (7) Like other blood poisons, it is most virulent in hospitals, or where large numbers of lying-in women are crowded together. (8) It is a distinct disease from its complications, peritonitis, metritis, oophoritis, phlegmasiæ, &c. (9) It is infectious to the fœtus in utero or the new-born child; as is small pox, measles, &c. (10) The lower animals are simultaneously affected. (11) When the disease runs its normal course the post-mortem appearances are not more inconstant than in other fevers. (12) In the course of an epidemic, like all general epidemics, "a wave" is usual; after it has become endemic, in-coming strangers are more liable to infection than habitual residents. Other analogies to specific septic disease will hereafter be considered.

(1) At times, without any appreciable cause, numbers of women are attacked with septicæmia in, before, or after parturition. I leave it to the epidemiologist to explain the terms. I, in common with others, use them, and state that general diseases spread by three agencies, epidemic, endemic, and infectious.* Of late years the epidemic existence of puerperal fever has been called in question. The discussions in the Obstetrical Society of London which

* Vide *Practitioner* for June, 1878, "Remarks by Dr. Thorne on Origin of Infection," p. 9, 467 *et seq.*

took place in 1875 first seemed to lead this theory ; but the ablest argument ever advanced against the epidemic causation of the disease, was the paper read by Dr. Matthews Duncan before the Medico-Chirurgical Society of Edinburgh in February, 1876, and published in the March number of the *Edinburgh Medical Journal*. The well-merited position and reputation for research possessed by Professor Duncan renders it no easy task to take exception to his conclusions. Yet I am certain there is no man living more willing to submit to fair and honourable criticism ; further, in replying to Dr. M. Duncan, I endeavour to answer the most exhaustive, able, and overwhelming testimony which has as yet been produced to prove that puerperal fever is not epidemic. Dr. Duncan anticipated the fallacies which the most critical acumen might discover, and it is simply to elaborate these, that I am now concerned. These are (1) that there has been no epidemic in London since registration became a national institution—*i.e.*, for twenty-seven years. “ In that case,” said Dr. Angus McDonald, “ we may fairly conclude that no epidemic of this disease is ever likely to appear.”* With the exception of 1874, of which we will presently treat, we concede as much, and even more. In Churchill’s “ Midwifery ” (page 575), we found a table of the great epidemics of this fever ; the last mentioned in London is that of 1838 ; it is further stated (*loc. cit.*) that it has since occurred occasionally. Assuming this to be in the main correct, we have, from 1838 to 1874, a period of thirty-six years. Now surely this is sufficient to condemn the theory of epidemy. But, let us with due deliberation refer to some other diseases, which are as yet allowed the privilege of epidemy. Of diphtheria—“ It is a remarkable fact,” says Austin Flint,† “ that they (epidemics of diphtheria) were scarcely known in America from the epidemic of 1771, described by Bard, up to about 1856, and since the latter date have occurred in all parts of the Continent.” Here is an interval of non-prevalence of *eighty-one* years.

Cerebro-spinal fever occurs epidemically ; it is but lately that an outbreak in Dundee was recorded by Dr. Maclagan. Dr. Aitken‡ writes : “ There is reason to believe that this disease has prevailed as an epidemic in Europe, at different periods and different places, during the fourteenth, fifteenth, sixteenth, and

* *Edinburgh Medical Journal*, March, 1876, p. 842.

† “ Practice of Medicine,” 1868, p. 944.

‡ “ Science and Practice of Medicine,” p. 535.

seventeenth centuries, and in the eighteenth century in France, Germany, Italy, England, Ireland, and Scotland." Flint* says "the name 'spotted fever' was applied in this country to an epidemic affection which prevailed in New England between the years 1807-16, and it has been revived under the belief that the epidemic disease just referred to (cerebro-spinal meningitis) was the same as that prevailing at the present time." Aitken's next account of the disease, with exception of some cases in Switzerland, North Germany, Ireland, and the United States epidemic, is, of an epidemic which occurred about the Lower Vistula and other parts of Germany in 1865; Flint relates its reappearing in 1866 in Pennsylvania, New York, and other places in America. Farther, taking plague, which has mostly now disappeared, excepting in Egypt, where it is endemic, unless when there is a direct communication with infective localities, we discover it was very prevalent from 1347-1665 in Europe. Morocco has been visited by plague in epidemic form only four times within a period of 150 years. Plague prevailed in Persia *only once in sixty years*, 1830-33. In Mesopotamia, there was an interval of thirty years between each epidemic outbreak.† So much for one fallacy. Cholera is cited by Professor Matthews Duncan as truly epidemic. What of all the recent reports and writings which seem to establish that contagion is the sole means of its causation? Typhus, according to Budd, Watson, and others, is solely due to contagion. So on, we may strain the argument *ad infinitum*. Dr. Duncan himself points out that mortality, not morbidity, is the basis of his statistics, and, it may be, that in this way some epidemics have escaped notice. In the discussion formerly referred to, on Dr. Duncan's paper, Mr. Chiene very pertinently remarked, that the comparison, to be just, should show the numbers liable to the various disorders which were compared with puerperal fever. Now it is unquestionably true, that cholera, typhus, variola, or scarlatina, has a much higher proportion of likely victims than child-bed fever, the three former encompassing all ages, and both sexes, and scarlatina and rubeola, attacking young adults and children, have a much larger numerical basis whereon to operate, than on a class of female adults with a definite age period. So far for the defensive—on the other hand we may speak with more definite data. At times this disease has appeared and raged with great virulence. I would

* *Loc. cit.* p. 607. † Vide *Practitioner* for September, 1877. August Hirsch.

only enumerate extra hospital cases, and more especially those records which can be easily got at. In London we hear of it in 1768-70-87-88. Dr. Gordon of Aberdeen, in his well-known pamphlet, described the disease as it existed in that city in 1795. In 1822 Drs. Mackintosh and W. Campbell recorded the Edinburgh epidemic, and Dr. Burns* has given a series of outbreaks in five cities. Dr. Craigie† gives a most elaborate historical account, as also does Dr. Fleetwood Churchill.‡ De la Motte§ records an epidemic in Normandy, especially in Caen and Rouen, and more modern records may be found in Fordyce Barker's admirable work.|| And within the last few years we may read¶ of similar outbreaks. In 1873-74 in England—Wolverhampton, Coventry, Stockton-on-Tees, Oxford, London : in Scotland—Fifeshire, Aberdeen, Turriff, the villages of New Pitsligo, Aberdeenshire, and Buckie, Banffshire, were all visited in more or less like manner. As this does not aim at being more than a clinical record I cannot enter fully into all these. While in England the puerperal death-rate in 1869 was 4·2 per 1,000, in 1874 it rose to 6·9 ; during the whole twenty-seven years of registration, from 1847-74, there was no such death-rate as in 1874. In 1873, the next highest, there were 1·740 ; in 1874, 3·108. In London the proportionate death-rate for the ten years, 1861-70, was 4·6, and in Leicester 2·8 per 1,000 ; so that, in all probability, the low provincial rate must have greatly increased. In 1873, during the first four months of the year, "though mortality from puerperal disease was greater than it had been for twenty years previously,"** from personal information I know that many deaths occurred in India and Australia in 1873-74 from puerperal fever. Does not this seem more than a curious coincidence ? It is true that no such vast multitudes fell victims as we are accustomed to see succumb to an invasion of cholera or smallpox, but if we believe in Dr. Lawson's " pandemic " theory of disease, the " wave " of puerperal fever threatened us in 1873-74. By accepting this view may be explained the recent epidemic visitation of child-bed fever. At the same time we are prepared to allow, in deference to Dr. Matthews Duncan's researches, that puerperal fever does not seem so widely diffusive as several

* "Principles of Midwifery," p. 590, 3rd ed.

† "Elements of Practice of Physic," vol. ii. pp. 186-90.

‡ *Op. cit.* p. 575. § "Manual of Midwifery," Schroeder.

|| "Puerperal Diseases," p. 440.

¶ *British Medical Journal*, 30th December, 1876.

** Barker, *Op. cit.* p. 439.

other zymotic diseases. At least, for thirty years, and probably for much longer, no such disease as epidemic childbed fever had visited Fraserburgh in Aberdeenshire. In October, 1874, it appeared amongst us. For the sake of "all round fairplay" I have prefixed my series of cases with the only conceivable source I could think of; at first I had my doubts, but latterly had none, yet I suffer the introductory case to remain. My experience has embraced many such cases and yet with no unfortunate sequences. I am inclined to think the case had (if it was in any way connected with the others) within itself the very disease, mayhap as a cause of the miscarriage. Such, at least, is possible; but I pronounce no opinion. Endemic causes can hardly be held to be a solution of the mystery. The town of Fraserburgh is well-built, the houses almost all recently erected, the streets wide, and the drainage good. As much cannot be said for the village of Broadsea, but the village of Rosehearty is fairly good in a sanitary point of view.* Seventeen cases were noted in Fraserburgh, three in Rosehearty, three in Cairnbulg, five in Broadsea, and four in the country round Fraserburgh. There were thus thirty-one cases, of which I have notes. Other deaths after childbed and bad recoveries happened at the same time in the neighbourhood, but of these I could not obtain reliable information. These cases numbered, at the lowest computation, five to seven. Confining ourselves to cases which I will endeavour to show were not due to septic manual conveyance, we find XIII. upwards of three miles south-east of Fraserburgh; XIV., XV., and XVI. in the town; XVII. five miles to the west; XIX. between four and five miles south-east; XX. in the town, XXI. half a mile distant, XXII. in town, as also were XXVI., XXVIII., and XXIX.; XXIV. and XXX. about a mile from town; IV., autogenous (?), was four miles east, and so on. There were two outbreaks, twenty-two cases from October, 1874, to May, 1875, and the remainder in July to September, 1875. The season of the year has been understood to have an influence in determining the advent of fever. Campbell† states that with damp changeable weather, with doubtless some hidden meteoric difference, we see the disease at its worst. At the end of Dr. Wm. McIntosh's Paper‡ several interesting meteorological

* The introductory case has been included, but as I am dubious regarding its just claim to be "puerperal fever" it is not again referred to.

† Pamphlet "On Puerperal Fever."

‡ "On Puerperal Fever," Edin., 1822.

logical tables are given, showing an increase of the fever during the months of October, November, and January. Dr. Arthur Mitchell also refers to the increased morbidity in October and November.* In my record November was undoubtedly the worst month; and of the summer series July had six of the nine cases. If I remember rightly, the latter month was hazy and disagreeable in the north-east of Scotland in 1875. I cannot afford to dwell on these observations, but they must carry some weight. No zymotic disease prevailed during either of the periods of childbed fever.

(2). *It is not solely dependent on septic material conveyed manually.* Eleven persons practised obstetrics independently, in the immediate vicinity, and in the town; of these, ten met with a case or cases of puerperal fever. Omitting all cases which might be attributed to contagion, we pass over the first and third, &c., and have eighteen remaining. At the danger of being prolix, I venture to draw attention to these. Case II. will be referred to below. I may mention I have classed cases of dubious origin under the septic class, so that, possibly, I may have unduly diminished my "unaccounted." On December 21, 1874, I paid an ordinary visit to a patient suffering from the fever (XII.) The next case, XIII., was delivered by me on January 24, 1875, and thereafter had fever. We have here an interval of one month and three days. I had had no close contact with a fever case since December 8—*i.e.*, forty-seven days before; XIV. was delivered on March 5th, forty-one days from the delivery of XIII.; XV. was delivered fifty-six days after XIV. I had no contact with XIV. during the symptoms of fever, owing to my absence from home, so that if I did really carry virus to XV. I must, despite every precaution, have been accompanied by this undesirable companion for ninety-seven days! XVI. was attended by Mrs. S——, a midwife enjoying considerable practice, on March 6, 1875. Her last case followed by fever was on November 18, 1874, an interval of *three months and eighteen days!* Several cases attended during that time showed no unfavourable symptom. XVII., a simple non-instrumental case, attended by Mr. Grieve, M.R.C.S., and Mrs. M——, midwife; neither had had any connection with the fever before. One case had occurred in the same

* *Edinburgh Medical Journal*, *loc. cit.*; Hulme, Leake, Horne, Armstrong, Gardien, and Capuron also support this hypothesis.

village a month previously in my practice, but there was no connection between the houses. XIX., attended by Mr. Grieve, who had seen a doubtful case on December 17, 1874, no contact with a case since the 7th of December, as XIX. was on February 8, 1875 ; the interval is two months. XX. and XXI. respectively were delivered by a gentleman and midwife. Neither had a similar case ever under their hands. XXII. was Mr. Grieve's, the date May 27, 1875 ; though he had treated a case in April, his last close contact with one had been in February. XXIV., a case with a most unusual history, was a patient of mine, delivery on June 27. It will be learned from the perusal of the case how unlikely it is that the disease began then. As regards XXIII. and XXV., the placenta only were removed, and from their dates, and no bad symptoms arising in XXIV. till the 14th of July, it seems very unlikely they could be attributed to septism. XXVI., a patient of Mrs. H——, midwife ; her last fever case was April 8th, three months before. She attended several cases with impunity during the said time. XXVIII. is doubtful as fever ; from March 6 to July 25, 1875, the attendant had been free from evil results in practice. A month and five days after I delivered XXVII. XXIX. fell in my hands. XXX. and II. all, I think, will allow, were ante-partum ; and if IV. was not autogenous, it must have been epidemic. The occurrence of these cases is separated by such periods of time that it is difficult to believe that manual transference of contagion is explanatory of them.

There is another way of meeting the assertion that manual contact is the sole or main cause of the disease—viz., by showing that midwifery cases may be attended with impunity shortly after attendance on a case of the fever. For brevity I will give only my personal experience. During the first series of cases, owing to my refusal to attend several accouchments, I had little opportunity of judging the due influence to be attached to manual infection. On January 24, 1875, I delivered and subsequently attended a patient who had fever. On February 20 I delivered a woman who made a perfect recovery. On April 29 a girl confined by me had fever after delivery. On May 21 and 29 I attended two cases (a breech and a forceps) ; both made favourable recoveries. I attended several cases up to June 27 ; all did well. During the second outbreak, with improved experience, I was less particular in avoiding obstetric engagements, and had no reason to reproach myself. The strongest evidence I can

adduce on this point is the following, which has already appeared in the *British Medical Journal* :*—" To examine these cases : On July 21 I had delivered a woman who took fever. I attended her up to August 8, and also another case up to August 2 ; during frequent visits to these patients I delivered a patient who did not contract fever. Again, on August 28 I delivered a woman who had afterwards puerperal fever ; she did not recover till September 9. On August 31, only three days after the former case, I had a very severe case, which was followed by a most excellent recovery ; in fact, the woman was so well that she imprudently went out on the fourth day. ,

The three following cases *per se* are sufficient to upset many dogmatic opinions regarding the contagion of this fever. One woman, confined on September 15, had a capital recovery ; one confined on September 16 took malignant puerperal fever and died ; the third, confined on September 20, made a most favourable recovery. And, for another example, while I was on daily attendance on the next patient mentioned, who recovered on October 9, a woman delivered by me on October 6 had no unfavourable symptoms.

No special prophylaxis was observed in the cases which escaped ; if possible, I was more careful regarding personal disinfection in the earlier than in the latter series of cases.

Dr. Gordon, of Aberdeen, was a strong believer in contagion, and cites many instances† in support of the doctrine. Dr. Campbell, in his pamphlet, takes‡ a markedly different view, as he states that of 800 cases under his supervision, only one in ten had fever, with the exception of three or four. He either delivered, or personally visited, all these at least once a day ; he took none of the modern precautions against carrying infection. He argues the likelihood of these patients being infected, if such were the means of propagation, as the greater number of them were poor, badly clad and fed, with wretched houses, and little bedding, but abundance of filth, and close, suffocating air. He mentions two cases of fever at which no medical attendant was present—one died, the other recovered. The late Dr. Hamilton, of Edinburgh, a decided contagionist, confessed he " could not account for many cases he had seen, both in the upper and lower classes." Horne§

* March 25th, 1876, " Quarantine of Puerperal Fever."

† " On Puerperal Fever," 1795. ‡ *Op. cit.* pp. 221, 222, *et seq.*

§ " Clinical Experiences," p. 81.

relates that in 1780 a woman was delivered in the Edinburgh Royal Infirmary. She occupied the *same* bed in which another woman had died a few days before of puerperal fever, yet she did not become affected, and continued to occupy the same bed till her discharge.

I might marshal great names *pro* and *con* the influence of contagion, but will content myself with Dr. Alfred McClintock's, a worthy example of modern scientific midwifery. He says :*—"I agree with Dr. Kennedy in thinking that puerperal fever is about as contagious as erysipelas, or ordinary continued fever, *but not more.*" In twenty-five years' practice he can conscientiously aver he never carried contagion.† The late Dr. Fleetwood Churchill says, "In the course of forty years' practice I have had puerperal fever among my patients ; but the most rigid inquiry has failed to show me any connection between any two patients." He then describes the precautions he adopted, and states "these were successful ; for I certainly never carried the disease from one patient to another."‡

I regret to say I cannot re-echo these statements, as will hereafter appear, but I trust I have satisfactorily established the correctness of my assertions, that it is not solely due to material conveyed manually. I wish to lay special stress on this, as some of the present theories held strongly favour such a doctrine. As an example of the evil of extra strong views on the question I may be permitted to allude to a Paper by Dr. Hunter in the OBSTETRICAL JOURNAL ;§ where a series of cases of septic origin are all grouped together as dependent on one cause. I cannot enter fully into a criticism of this excellent contribution, but, while I am duly appreciative of the merits of the article, I am not convinced that a series of illnesses, comprising erysipelas, quinsy, sloughy sore throat, phlebitis, septicæmia, and puerperal septicæmia, all mixed together, and arising from, or giving origin to each other indiscriminately, were from one source, as the author argues. At the same time, he disavows the doctrine held by some which maintains the identity of erysipelas and puerperal fever. There were also cases which, though attended in childbed by Dr. Hunter and his assistant, escaped in the midst of this most virulent outbreak. With all

* Reprint from *Dublin Quarterly Journal of Medical Science* for August, 1869.

† *British Medical Journal*, March 25th, 1876, p. 380.

‡ *Ibid.* § October, 1876, p. 471.

humility, I submit that the explanation of this interesting record might be that there was epidemic diphtheria existent in the district and also erysipelas, and that the puerperal septicæmia cases were caused by infection from the virus of one or other of these, either by manual transference or atmospheric influences.

(To be continued.)

Reports of Hospital Practice.

WESTMINSTER HOSPITAL.

Under the care of Dr. POTTER.

Retention of Menses from Imperforate Hymen.—Cure by Operation.

Reported by Mr. A. MERCER DAVIES.

EMMA L., aged nineteen, servant; admitted January 21, 1880. —Patient has always had good health, but, though nineteen years old, has never menstruated, nor has she ever felt any pain or uneasiness at monthly intervals. About a fortnight ago she first began to feel some uneasiness about the lower part of the abdomen; two days after retention of urine occurred, and a catheter had to be used. This has been repeated four times previous to admission.

On examination the hymen is found to be absolutely imperforate, and an elastic feeling is communicated to the finger on pressure, giving the sensation of contained fluid. Above the pubes can be felt a tumour, about as large as the gravid uterus, at the fourth or fourth and a half month, reaching halfway up to the umbilicus, pressure on which communicates an impulse to the vaginal tumour. Patient feels well; no feverishness. The catheter is to be used every day.

Jan. 24.—Dr. Potter punctured the hymen with a trocar and canula, and about twenty ounces of dark treacly blood were evacuated, spouting forth in a full stream. A small piece of the hymen was removed with scissors. Patient was placed in bed, on her back, and care taken to prevent any pressure on the abdomen, so as to obviate flow of blood through the Fallopian tubes. Ordered—

R Sp. ammon. aromat,
Tinct. hyoscyami, āā ℥xxx.
Aq. camph., ad ʒj. Ter die.

Jan. 26.—There has been a slight red discharge since the operation. Patient feels much relieved; passes water freely. Ordered an injection of

R Acid. carbolic.,
Glycerine, āā ʒss.
Aq., ʒiv.

ʒss to be used night and morning with half a pint of tepid water.

Jan. 28.—Patient feels well. Bowels not yet open. Ordered an enema. The temperature up to this time had not exceeded 100°.

Jan. 29.—Temperature (mouth) rose yesterday at 8 P.M. to 103°. This morning at 8 A.M. it is 100·2°; at 12 noon 104°; 8 P.M., 104·4°.

The bowels were freely open after the enema yesterday. In the evening patient complained of a good deal of pain in the abdomen, but slept well. Some pain this morning, chiefly in right iliac region.

Jan. 30.—Patient did not sleep, but states she had no pain to speak of. Tongue coated. On examination, the vagina was found to be nearly occluded by contraction of the hymen, which probably prevented the injection being properly administered. The hymen was dilated by the finger easily. Ordered—

R Quiniae sulph., gr. iij.
Acid. sulph. dil., ʒiij.
Aq., ʒiss. N. & M.

For the next four days patient complained of no pain and slept well, but the temperature rose each evening at 8 P.M. thus:

Jan. 30	.	.	.	103°	} Pulse about 100°.
31	.	.	.	103·6°	
Feb. 1	.	.	.	104°	
2	.	.	.	104·2°	

The morning temperature did not exceed 100°.

During the next six days the temperature just touched 103° or thereabouts in the evening, and in the morning descended just below 100°. Pulse still about 100.

For the next four days pulse and temperature were normal. Patient felt better and had some appetite; tongue clean.

On February 15th, the evening temperature rose to 103°. Patient had a good deal of pain during the night, more than she had had since admission, and similar to what she suffered when originally taken ill: it is of an aching, burning character, felt all

over the abdomen ; no tenderness. There is a slight yellow discharge ; no tinge of red. Ordered a repetition of first medicine.

Feb. 17.—Catamenia appeared this morning ; pain less last night. Temperature at 8 P.M., $101\cdot4^{\circ}$. Catamenia ceased in the evening, having been very scanty.

The evening temperature kept above 100° for three days longer, and then became normal.

Feb. 20.—Patient feels well. To get up to-morrow.

Feb. 28.—Patient goes home to-day, feeling quite well.

From Jan. 29 onwards the temperature was taken regularly every four hours. In the case of the pyrexia which more immediately followed the operation, lasting from Jan. 28 to Feb. 9, the diurnal variations were marked and constant, the temperature falling to its minimum (which ranged from $100\cdot4^{\circ}$ to $99\cdot5^{\circ}$) almost invariably about 8 A.M., and reaching its maximum (varying from $102\cdot2^{\circ}$ to $104\cdot2^{\circ}$) about 8 P.M. In the case of the pyrexia which preceded and accompanied menstruation, lasting from Feb. 13 to 20, a regular diurnal variation was equally marked, but the lowest temperature occurred about 12 noon, and the highest about midnight ; and the variations were not so extreme or so regular as in the first period of fever.

Remarks by Dr. Potter.—Cases of completely imperforate hymen are comparatively rare. The principal points of interest in this case were—First, the complete absence of menstrual nixus, although from the quantity of fluid evacuated, there is no doubt that a considerable menstruation must have taken place for many months. The symptom which called attention to the state of matters, not being pain or feeling of tumour, but retention of urine. Secondly, the absence of peritonitis, which occurred in most of the recorded cases of this nature : throughout the illness there was never any abdominal tenderness. Whether this immunity was due to the absence of pressure it is difficult to say, there is considerable difference of opinion among authorities on this point. Some advise the use of a firm abdominal bandage, others of gentle pressure ; in this case the abdominal walls were left free. Lastly, the only symptom that caused anxiety and retarded convalescence was the elevation of temperature, doubtless due to some septicæmic condition. On another occasion I should be disposed to use anti-septic injections immediately after the removal of the fluid.

Notices and Reviews of Books.

Contributions to Obstetrics and Gynecology. By Alexander Russell Simpson, M.D., Professor of Medicine and Midwifery and the Diseases of Women and Children in the University of Edinburgh. Edinburgh: Adam & Charles Black, 1880. Pp. 347.

THIS volume seems to comprise every contribution to obstetrical and gynecological science which the author had up to the date of its publication made, whether in writing, in the form of contributions to various periodicals and transactions, or by word of mouth, in speeches made before the Obstetrical Society of Edinburgh. The various essays, reports of cases, and fragmentary remarks previously made public in these ways, are here collected and arranged in the order in which their respective subjects would be taken in a systematic treatise. It hence results that the book is composed of papers differing widely in length and in importance. We cannot but think that the author would have exercised a wiser discretion if he had left out many of the minor bits of writing which help to make up this volume, and had included in it only those papers in which he had gone into his subject with some completeness, and had adequately expressed, not only his opinions, but his reasons for holding them; and of reports of cases, only such as are complete. In illustration of our remark, we may refer to pages 88, 205, 280, as containing matter which we cannot see any reason for republishing.

The first paper in the volume is an address given from the presidential chair of the Obstetrical Society of Edinburgh, entitled "Emmenologia," and consisting of an account of what is known about the physiology of menstruation. It contains, so far as we can see, nothing that will be novel to the English reader, except that he adopts the theory of Lowenhardt—viz., "If we are to make the closest possible approach to the calculation of the probable date of her confinement, we must above all have regard to her own individual menstrual type, and ascertain what is with her the usual length of a menstrual cycle. The ovum which took nine months of so many days to ripen within its ovisac, will, after it has become impregnated, take the same number of months to undergo its development within the uterus. We have therefore to find out the number of days between the commencements of the two menstruations that preceded conception, and multiply the figure by ten; and within

a range of five days earlier or later, the birth of the impregnated ovum will probably take place" (p. 19). Does the author mean to go so far as to say that in patients who menstruate every three weeks pregnancy only lasts 210 days? It would seem so: but we do not think Lowenhardt has yet thoroughly proved his theory, and Professor Simpson does not adduce any further evidence. We do not think it is yet satisfactorily demonstrated, even if there be anything which can be called evidence of it, that nine months is the precise time which the ovum takes to ripen in its ovisac.

The section of the work which is devoted to the morbid conditions of the fœtus contains a good description of an acardiac fœtus. Dr. Simpson applies the theory of Claudius to the elucidation of its peculiarities, and we quite agree with him in thinking that this theory is borne out by his specimen. There is also a paper of great value upon congenital goitre, which contains a very complete and exhaustive account of this subject. The author has carefully mastered the literature of the subject; he describes one case which has come under his own observation, and tabulates twenty-two collected from other sources; and from these data he considers the disease in its pathological and clinical aspects. There are also under this head some interesting remarks upon congenital hydro-nephrosis.

The next paper of length is one upon placenta prævia, in which the author gives an account of three cases of the kind, and in commenting upon them takes opportunity to express his opinion upon some controverted points in the clinical history of this complication of labour. With regard to the effect of artificial separation of a zone of placenta in arresting hæmorrhage, Professor Simpson is convinced that he has seen good effects from it, and that the treatment is useful, although he does not advocate it in every case. He does not, however, point out what are the cases in which it is called for, or what those in which it is inappropriate. As an expression of opinion by a teacher occupying a high position, this paper is of importance: but neither the cases nor the remarks upon them contain anything novel.

In a paper on "the complete evacuation of the uterus after abortion" the author discusses the treatment of this accident, or perhaps, we should say, the best means of artificially assisting this process when it is necessary to do so. The title indicates that upon which the chief stress is laid, because, in the opinion of the author, too little information about it is given in the ordinary text-books.

Professor Simpson advises putting the patient under anæsthesia, drawing down the uterus with a volsella, separating the ovum with the finger, and then removing it either with finger or forceps. With these manœuvres all practical gynecologists are familiar. We doubt whether the author has not made it appear as if this mode of treatment were more necessary, as a matter of routine, than it really is. There can be no doubt that many abortions are completed, like labour, entirely by the natural efforts ; and so long as there is a fair prospect of the case ending in this way, we cannot but think it better to let the uterus alone, for every unnecessary manipulation or wound of the uterus adds somewhat, even if only slightly, to the risk of the patient, and is therefore bad practice.

Among the most useful papers in the volume are those which relate to the mechanism of labour. One treats of the cause of head flexion in labour ; and is an exposition of the views of Lahs of Marburg. To those who do not read German this paper will be of much service, for Lahs has here undoubtedly added much to our knowledge of the mechanism of labour. In a paper on "*Turning versus Forceps*," Professor Simpson has similarly reproduced the views which have been so ably set forth by Goodell. As Goodell's paper on the subject was published in America, and is therefore somewhat difficult of access for English readers, the abstract of his views here contained will prove very interesting to those who are unable to themselves study Goodell's masterly monograph. In the author's brief reference to the literature of the subject, we think he hardly does full justice to Goodell, for he merely mentions his name with those of Lahs, Michaelis, and Sir James Simpson. Now the point and object of Goodell's paper, upon which Professor Simpson's present one is based, is to point out, that the same treatment is not suitable to the different kinds of contracted pelvis ; in the one, the generally contracted pelvis, the forceps is indicated ; in the other, the flat pelvis, narrowed in the conjugate diameter, turning is preferable. There is no hint at this in the paper of Sir James Simpson, who advised turning simply as an occasional substitute for craniotomy, an operation lying intermediate between forceps and craniotomy, and did nothing to point out what are the special cases for turning, and what those for forceps. This has been done best and most fully by Goodell ; and to him belongs the credit of having made a distinct step in advance.

In treating of uterine fibroids the author figures an instrument which he calls a "*nail-curette*," and has devised for the purpose of

separating fibroids from their uterine attachments. He says very little about the most important question—viz., Under what circumstances is it good practice to attempt the enucleation of uterine fibroids? It is well known that many disastrous results have followed operations performed, or (more often perhaps) attempted with this end in view, and we believe that most prudent gynecologists accept the conclusion arrived at by Mr. Hutchinson, that such operations are only justifiable when either the symptoms are very urgent, or the fibroid such in size and position that the operation is very easy. Professor Simpson writes as if it were a simple and routine proceeding, and says nothing about the amount of risk attending it. As to the suitability for the purpose of the instrument itself, it is of course difficult to judge without having used it; but we should have thought that when the base of attachment of a fibroid could be cut through with Professor Simpson's new instrument, the desired end could be more easily and safely attained with the *écraseur*.

The Paper on uterine sarcoma is an admirable one. The author narrates four cases of his own, and gives a full account of the bibliography of the subject. It is we believe the most complete account of the subject in our language; for this rare disease is but briefly mentioned in most of our systematic works.

The volume contains a report of a case of oöphorectomy, which, on account of the debatable position which this operation at present holds, is of much interest. Unfortunately the case is as yet incomplete as to its most important point—viz., the result. The operation was performed in June, 1878, and in March, 1879, at the menstrual period, "somewhat of her old suffering" had returned. April and May passed over without menstruation; and there the record ends. It would be interesting, and is very important, to know whether the patient's old sufferings did or did not again return.

The last Paper in the volume is entitled "*Basilysis*," and describes a new instrument for reducing the size of the foetal head by perforating and breaking up the base of the skull. The author does not say that he has used it in practice; its real utility, therefore, remains to be ascertained. We should ourselves be doubtful whether it would prove as efficient as the *cephalotribe*.

We have not been able to do more than allude to some of the more important Papers in the volume. Although we cannot say that the book contains much that is at once novel and demonstrated to be true, yet it is a monument of work highly creditable to the

author. Its chief fault lies, as we have said, in the amount of "padding" it contains—Obstetrical Society speeches, and imperfectly reported cases; and even Papers, in part excellent, are swollen out by paragraphs and pages devoted to the illustration of platitudes, and the repetition of what is perfectly trite. For instance, we have a page (p. 138) on the mistake made by a medical man in overlooking pregnancy because he did not examine the patient. Surely it is not necessary to tell the profession at such length that a medical man who ventures an opinion without examining his patient may fall into error.

But, on the whole, the book shows great industry, extensive bibliographical knowledge, and careful observation. The subjects are treated methodically, and the style is clear and precise. It is well worth careful perusal. We hope in any subsequent collection of Papers which Professor Simpson may bring out, he will use the pruning-knife a little.

Abstracts of Societies' Proceedings.

OBSTETRICAL SOCIETY OF LONDON.

Meeting, Wednesday, July 7, 1880.

Dr. W. S. PLAYFAIR, *President, in the Chair.*

Uterine Fibroid.

Dr. CHAMPNEYS showed the uterus of a woman aged sixty-nine. The posterior wall was occupied by a large fibroid, which had extended into the posterior lip of the cervix, and far below the level of the os externum. The rest of the uterus was not thicker than a double sheet of blotting-paper, this atrophy affecting the cervix also. In the right broad ligament was a fibroid calcified "en coq," the size of a large tennis-ball.

Ruptured Tubal Fœtation.

Dr. GODSON showed the uterus and appendages of a woman aged twenty-two, mother of two children. When sitting at work she was suddenly seized with violent pain in the lower abdomen, and became faint and pallid. Mr. Henry Thompson, of Hull, who saw her in the course of an hour, found her in a state of collapse and

almost pulseless, and she died in eight hours. At the autopsy, Mr. Thompson found the abdomen full of blood, amounting to at least six pounds. The specimen showed the right Fallopian tube distended by what seemed to be a fibrous clot, and in this situation a rent had taken place. The uterus was lined with decidua, and a mucous plug occupied the cervix. The woman had menstruated six weeks previously, and the right ovary contained at its surface what appeared to be a recently ruptured Graafian vesicle containing a small clot. No ovum was found. Dr. Godson remarked that the specimen closely resembled one he had exhibited earlier in the year: the swelling in the Fallopian tube was of the same dimensions, and it was found to contain chorionic structures.

Dr. WILTSHIRE inquired in what manner the blood was distributed in the peritoneal cavity. He sought information on this point believing it to have important bearings on the pathology of blood effusions in the pelvis, a subject to which he hoped before long to call the attention of the Society. He thought this case illustrated the propriety of ligaturing and removing the ruptured and bleeding tube; a practice he had on several occasions advocated before the Society, and one which he believed would be adopted when the ambiguity surrounding the diagnosis of these cases was removed. After alluding to cases he had lately seen, and pointing out the difficulties attending the differential diagnosis of ruptured tubal gestation, he expressed the opinion that in an unequivocal example, in which the patient was obviously sinking from internal hæmorrhage, operative measures, such as he had indicated, were required; and, in these days of improved abdominal surgery, might be crowned with success.

Dr. SAVAGE thought that in this case the source of the hæmorrhage was not made out. In tubal pregnancy, if we were to interfere at all, it should be done as early as possible; we should not wait for the occurrence of hæmorrhage. He did not think it proper to open the abdomen for the purpose of finding the source of the hæmorrhage.

Dr. WILTSHIRE in reply to a remark from Dr. Savage, said that he did not for a moment presume to cast reflections upon the treatment in this case, but he thought the profession had hardly arrived at generally accepted conclusions on the subject.

Dr. ROGERS thought the operation would be justified if the diagnosis were certain; but as yet it was uncertain. Internal

hæmorrhage might take place from other sources than extra-uterine gestation. We ought not to open the abdomen until the diagnosis was certain. Although he did not think the operation at present justified, he would be glad of any indications which would serve for guidance in such cases.

Dr. CHAMPNEYS said that in examining the specimen he thought he saw the rent through which the fatal bleeding had occurred.

The PRESIDENT thought that the operation would some day be done, but at present no blame could be cast on any one for not doing it.

Dr. GODSON mentioned that the patient had no idea that she was pregnant.

Report of the Committee on Dr. Chambers's Case of Hysterectomy.

The tumour measured 9 inches in lateral horizontal diameter ; 8 inches perpendicularly ; $4\frac{3}{4}$ inches antero-posteriorly. On section it was found to be a large fibroid uterus. The fibroid was situated above the cavity, into which it bulged, and which it rendered bicorned, the right horn being $5\frac{1}{2}$ inches, the left horn 5 inches long. The mucous membrane varied from $\frac{1}{8}$ to $\frac{1}{4}$ inch in thickness. The fibroid tumour was encapsuled by the proper uterine tissue, about $\frac{3}{4}$ inch thick. The capsule could be easily separated from the fibroid in the upper two-thirds of the tumour, but at the commencement of the lower one-third, uterine wall and tumour became intimately joined by blood-vessels arranged in a cavernous manner, opening into each other in all directions, and greatly dilated, one sinus measuring half an inch in diameter. On cutting into the fibroid, it was seen to consist of several large lobes, joined by areolar tissue, in which a few vessels ran, one of them as large as a crowquill.

Dr. CHAMBERS, in reply to Dr. Potter, stated that the patient had done well.

Ladies' Sanitary Towels.

Dr. GALABIN showed the new sanitary towels, manufactured by Messrs. Southall Bros. and Barclay, of Birmingham, as a substitute for the ordinary diapers for use during the catamenia, and after confinement. They contained a pad of absorbent cotton wool, rendered antiseptic by boracic acid, as being less irritating than other antiseptics. The advantages were, that they could be burned after use, and so were especially valuable for the lying-in room, and that they were very soft and absorbent. The retail

price was 3s. a dozen, and it was believed that the cost would not much exceed that of the washing of ordinary diapers, since they could be worn longer. The wholesale agents in London were Messrs. Maw, Son and Thompson, Aldersgate Street, and Messrs. Sharp, Perrin and Co., 31, Old Change.

Adjourned Discussion on Dr. Graily Hewitt's Paper, "Report on Sixty-seven Cases of Uterine Distortion or Displacement, Treated during Seven Years at All Saints' Institution for Ladies."

Dr. BANTOCK said: In resuming the discussion elicited by Dr. Graily Hewitt's Paper, I am desirous of offering some remarks on the subject of uterine displacements. If in the course of those remarks I should seem to some to be rather too dogmatic on some points, I must ask you to believe that it is not because I have no arguments to advance in defence, or evidence to bring forward in support, of my position, but it is because the limited time at my disposal, and which will be in great measure owing to your forbearance, will not admit of any lengthened argument on points that may be in dispute. As the subject is a very wide one, I shall endeavour to lay my views before you as concisely and as pertinently as I can; and for this I shall have to ask your indulgence for a short time.

Before proceeding to the subject in hand, I may be permitted to express my high estimate of the value of the Paper as a practical contribution to this very important question.

In my opinion not its least merit consists in the prominence which is given to the doctrine that deviations from the natural position of the uterus are undoubtedly the cause, either directly or indirectly, of much, though variable, constitutional disturbance as well as local suffering. There can be no doubt that the author is thoroughly convinced of the truth of this doctrine. Such being the case, he is right, as Dr. Barnes justly remarked, in continuing to hammer away at the subject. Nor is it any the less the duty of those who think with him to continue their exertions in the same direction, until the doctrine meets with more general, if not universal, acceptance.

Now it is something to find common ground from which to start; for it so happens—may I say unfortunately? that while we are agreed on general principles, there will yet be found to exist considerable divergence on some points when we come

down to particulars. We both recognize, in principle, the necessity and value of mechanical appliances in the treatment of this class of cases, but we do not necessarily agree on the mode of application. But these are matters of detail.

The amount of evidence now forthcoming in favour of this doctrine is so overwhelming, that I can scarcely imagine any one any longer offering it serious opposition. It is an encouraging fact to those who accept this doctrine that, however determined was the opposition of ten or fifteen years ago, it has gradually got less and less as time has advanced, until in our own day it finds that qualified expression which we meet with in the classic pages of our late President, Dr. West. As for myself, starting in professional life without any predilection either one way or the other, and certainly without any knowledge on the subject, I have seen so many instances of health, that had been long impaired in this way, restored by treatment based essentially on this view, that had I been one of the most sceptical of men I must have been satisfied with the evidence. But it may be said, and indeed it has been affirmed, that the symptoms which accompany uterine displacements are not due to the displacement, but to co-existent states of the uterine tissues and functions, and that one has only to cure these, and the symptoms will disappear. Thus Scanzoni in his work "*On the Diseases of Females*," tells us that, as the result of his observation, "flexions (under which head he also includes versions) do not acquire any importance, nor are followed by any serious dangers, save when they are complicated with an alteration in the texture of the organ." As he does not give us the data on which he bases this opinion, we are unable to estimate its worth. He appears to have arrived at this conclusion from having observed several cases of what he calls Anteflexion that were unattended with symptoms. One of these was that of a woman who died of phthisis, and was the subject of amenorrhœa; and another was that of a woman who died of marasmus from suppuration of the kidneys and bladder, and who menstruated regularly and painlessly, though in diminishing quantity towards the last. Of this case he tells us that Virchow verified the existence of anteflexion post-mortem; but, he has the candour to add, it was not very distinctly marked. Nor is the evidence afforded by the other cases any more conclusive, while his peculiar classification, as I shall yet show, throws a great deal of doubt into the subject. I do not know how far such evidence would satisfy

you, but to me, I must say, it appears of the weakest possible kind. But, as if to spare anyone the necessity of refuting the doctrine he has just laid down, and failing to be consistent with himself, he goes on to discuss the question *how and why flexion eventually almost necessarily induces alterations in the structure of the organ.*"*

Similar to the views of Scanzoni are those held by Dr. Atlee, who, in a vigorous attack on pessaries, while admitting that he had had no experience in their introduction, but a large experience in their withdrawal, went on to say that, with the uterus and pelvic organs in a healthy condition, a change in the position of the uterus was of no significance whatever, and there was no need of an instrument to keep it in a certain position. Such also are the views enunciated in the work of M.M. Bernutz and Goupil, and in that of M. Courty; and they are endorsed, though with some qualification, in the more recent work of Dr. West.

Now I am not prepared to deny that there is some truth in the views of Scanzoni, Atlee, and the others I have named, stated as an abstract proposition. It may even be true in a very small minority of cases, that with the uterus and pelvic organs in a healthy condition, a change in the position of the uterus is of no significance, and especially if the displacement take the form of *Anteversio*. But this is simply begging the question; for the chief result of displacement, varying with the extent and mode of the displacement, is that very alteration of texture, and consequent disturbance of function, to which they attach so much importance, and which Scanzoni takes so much pains to demonstrate. I am not aware that any one, even the most zealous advocate of mechanical treatment, has anywhere stated, or believes, that the displacement is the only element in the problem. Of course, in the great majority of cases there is a co-existent alteration of texture, but it is of the utmost importance to recognise the fact that this condition is the result of the displacement, and hence that the removal of the displacement must be the first step. Even when the displacement is not the first step, as in the case of *Retroversion* of a sub-involuted uterus from the patient's getting about too soon after her confinement, the restoration of the organ to its normal position is just as urgent. In such a case the retroversion checks the process of involution, and thus may be regarded as the

* "On the Diseases of Females," by Scanzoni. Gardner's Translation, p. 115.

chief factor. I might illustrate this in the case of *Anteflexion*, and show the successive steps of the process by which the change of texture is brought about, but that I have on a former occasion done so, and at considerable length, before this Society. Nor shall I quote cases from my own practice to enforce this point, as I might easily do, did time allow. But I may be permitted to refer to a case in the practice of another, and which will be seen to possess more value than one of my own. Not long ago Dr. Angus Macdonald related a most instructive case, in which, after exhausting all the modes of constitutional and topical medication on which Scanzoni and Atlee would have relied, in vain efforts to relieve his patient, he was obliged to have recourse to a pessary. The result was a complete success. At the same time he took occasion to confess, with a courage which all must admire, that, though he had begun practice strongly disposed to disregard uterine displacements, this case convinced him that he was bound to reconsider his position, and to recognise not only the importance of displacements as a cause of suffering, but also the value of the pessary as a means of relief. Whether the case was one of Retroflexion according to his view, or of Retroversion according to mine, is immaterial to the present argument.

With reference to the assertion that cases of displacement have been met with unattended by symptoms, I very much doubt the correctness of the statement if it is intended at the same time to affirm that the displacement was well marked, that it occurred in a woman whose generative system was in an active condition, and in whom the symptoms were not masked by those of some other and more acute disease. To this assertion may be opposed the evidence afforded by those cases in which a healthy uterus becomes suddenly displaced, usually backwards, as the result of a fall on the buttocks, or other application of force. That this accident is attended by well-marked symptoms I believe every one admits. I have recently published such a case, which you will perhaps allow me very briefly to recall.* The case was that of a young girl, only fifteen years old, who met with this accident *through falling on her face in a fit of sneezing which seized her when she was in a stooping position*. From that moment she complained of severe pain; her next menstrual period was so painful that she was obliged to keep her bed during part of the time, and she suffered more or

* *The Lancet*, August 9, 1879, page 198.

less until I rectified the retroverted uterus by means of a Hodge's pessary, which gave her as immediate relief as the fall gave her pain. Here then the evidence is complete: and I may take this opportunity of stating that I have never seen a case of well-marked Retroversion, of Retroflexion, or of Antelexion, without some symptoms referable either to the time of the menstrual flow, or the inter-menstrual period.

I believe, therefore, that the more marked is the displacement the more decided are the symptoms, that the symptoms are severe in proportion to the alteration in the texture of the organ and its disturbance of function, that these conditions are the result of the displacement, and, therefore, that the only rational treatment is to rectify the position as the first step.

The division of uterine deviations into four great classes—viz., Retroversion, Retroflexion, Anteversion, and Antelexion, is now generally accepted. Yet I fear, with Dr. Gervis, that the distinction between these is not always kept in view, and certainly not by the authors of our Systematic works. I have often had to complain of want of precision in this respect, the terms “version” and “flexion” being mixed up in the greatest confusion as if they were synonymous, or at least as if the distinction were of no importance. In illustration of this statement, I take the systematic works of three of our most distinguished Fellows. Thus Dr. Graily Hewitt says: “changes in the form of the uterus are described under the term ‘flexion and version,’ the two being often confounded. Flexion of the uterus is generally associated with some degree of version, but there may be version without flexion.” And yet so much does the author proceed to confound them, that from the beginning to the end of the chapter the term Retroversion occurs only twice, and then only by haphazard. Nor is this confusion of ideas less evident in the figures which he employs to illustrate the text. But, seeing that he does not make a point of separating them, I am less disposed to find fault with him than I am with Dr. Barnes, who, ostensibly observing the distinction between them, and describing them under different heads, yet confounds them. In proof of what I say I will ask you to look at his figures, under the head of Retroversion, illustrating the mode of applying the Hodge or lever pessary—for what? For Retroversion? No—for Retroflexion. It is not within the scope of my remarks to say anything of the illustrations themselves. The same want of precision is abundantly evident in

Dr. West's more recent work. And not to cite too many instances, I would just mention that while the late Sir James Simpson spoke of these backward displacements under the head of Retroversion, his successor in the Professorial Chair speaks of them under the head of Retroflexion.

But while I advocate greater precision in this respect, I am not prepared to refine definitions down to mathematical exactness. Hence I cannot agree with Dr. Gervis in dividing cases of Retroversion into three classes—viz., 1st, those in which the uterus may be permanently replaced by the sound ; 2nd, those requiring the support of a pessary ; and 3rd, those in which the uterus is bound down by adhesions. This is a classification that can serve no useful end in practice and simply burdens the subject. For I believe the first variety has no existence at all, and I am of opinion with Dr. Barnes that the third is exceedingly rare—so rare indeed as not to deserve being erected into a separate class with the character “incurable” attached to it. Of this variety I am unable to recall more than five instances. In four of these the condition was only conjectured to exist, but in the fifth it was verified by actual observation in the course of the operation of ovariectomy. In this case there were filamentous bands between the uterus and the floor of the pelvis, similar to those which attached the ovarian tumour to neighbouring parts, but they were not such as to prevent the uterus from rising into its position when the pressure of the ovarian tumour was removed. I think then that nothing is to be gained by minute, and what I may be permitted to call fanciful, definitions.

Of far more importance is it to recognize the difference between retroversion and retroflexion ; for instances are by no means uncommon, indeed they are, I believe, frequent, in which it is difficult to say whether the case is one essentially of flexion or version. Thus the uterus may have been in the first instance retroverted, but in consequence of the cervix meeting with more resistance in its upward, than the body in its downward, movement, an amount of flexion has been superadded whose intensity will bear a direct relation to the difference between the degrees of resistance. How is this to be determined ? I am in the habit of regarding the position and direction of the cervix as the chief test. For instance, if the os point towards the coccyx, and the fundus can be felt in Douglas's pouch, behind the cervix with the usual sulcus between the body and cervix, the case is a true retroflexion. If, on the

other hand, the cervix be found behind the pubes with the os pointing more or less towards it, or even above it, the case is one of retroversion. Under the last-named circumstance the uterus is turned nearly topsy-turvy. There is no difficulty in distinguishing between these two conditions. But there are all shades of gradation between these two extremes, and the nearer it approaches the intermediate position the greater is the difficulty. Let me take one of these. The uterine body is down in Douglas's pouch and the os points to the vaginal outlet, so that the finger as it passes up the vagina goes straight into the os. Such a case, notwithstanding that there is a distinct bend at the junction of the body and cervix, whose concavity looks backwards, is essentially a retroversion. If in such a case you press the cervix backwards, you will find the body recede from you in a corresponding degree, until it can be made to attain its natural position. To take another instance. The body is in the same position, but the cervix is not so far forward, yet distinctly in advance of its natural position, and the os points towards the anus or thereabouts; but there is a much closer approximation between the body and the cervix, and the sulcus is deeper. Such a case is essentially a retroflexion; and it will be found that as you press the cervix backwards you double the uterus upon itself and the body does not rise correspondingly out of its position.

I cannot, therefore, too strongly insist on the importance of noting the distinction between these two states, for it has a direct bearing on the question of treatment.

The comparative frequency of these deviations is matter of dispute, so much so, that it would be a hopeless task to evolve order out of the chaos that at present reigns. Such tables as have been constructed are hopelessly at variance with one another. The author of the Paper makes no attempt in his systematic work to state their relative frequency. In the Paper before us we find 67 cases. Of these

45 belong to the group of forward displacements—anteversion or flexion, and

22 to the group of backward displacements—retroversion or flexion.

Of the 67, 44 were single,
and 23 married.

We can thus satisfactorily account for the preponderance of forward

displacements, and these proportions must not be taken as applying to the general community.

Dr. Barnes tells us that, as between the two forms of backward displacement, retroversion is not nearly so frequent as retroflexion. According to Klob, retroflexion is rarer than anteflexion, but anteversion less frequent than retroversion. West tells us that "there seems to be reason for believing that the different varieties of flexions of the womb—as its retroflexion and anteflexion—are of more frequent occurrence than the corresponding alterations in position of the whole of the organ which is known as retroversion or anteversion" (p. 181). Again, of the two misplacements—anteflexion and retroflexion—"the former is alleged by Rokitansky and by other morbid anatomists to be more frequent; and observation during life confirms, on the whole, the correctness of this statement. In my own notes, indeed, I find the particulars of 43 cases of retroversion or retroflexion, and of only 20 of anteversion or anteflexion; but these results are at variance with those of some most trustworthy observers, and I believe they are due to the circumstance that in the early period of my observations I often failed to mark the slighter degrees of anteflexion. Valleix, in his valuable lectures on this subject, gives 35 deviations of the uterus forwards, and 33 backwards; Dr. Mayer, of Berlin, met with 63 cases of the former and 64 of the latter."* Of the more recent writers, the most precise in this respect is Gaillard Thomas, who observes closely the distinctive characters of the two forms of backward displacement as I have laid them down. But he makes no attempt to state their relative frequency from his own observations. Of such statistics as he has been able to collect from others—viz., Meadows, Nonat, and Scanzoni—he says, "Nothing but discrepancy and doubt result from the comparison of the figures of these three conscientious observers," and "after such a comparison of statistical evidence" he feels inclined to agree with Sydney Smith when he said "There is nothing so unreliable as figures except facts."

It results, from my own observation, that the order of frequency in which these deviations occur is this—viz., retroversion—anteflexion—anteversion—retroflexion. Thus, of 2,000 women who came under my notice in the out-patient department of the

* "Diseases of Women," West and Duncan, p. 189.

Samaritan Free Hospital, during the three years 1872 to 1875, of which I have tolerably accurate notes, 149 were the subject of uterine displacement, accompanied by symptoms which caused attention to be given to the pelvic organs. That this is only an approximation I am free to admit, and for this reason, amongst others, that many women who complained of pelvic pain or discomfort would not submit to examination. Of this number 72 had retroversion, 51 had anteflexion, 21 had anteversion, and only 5 had retroflexion. Thus there were 77 cases of backward, and 72 of forward, displacement; a statement of results, in this form, closely approaching those of Valleix and Mayer. In private practice I find the same proportions, and I am convinced that if the characteristics of each form were observed as I have laid them down in common with Thomas, they would be very closely verified. So long, however, as there is an absence of unanimity in respect of classification, so long will statistics continue to be useless and even misleading.

But I must now pass on to the question of treatment of which I would make this general remark, that it is little to be wondered at that such discrepancy should exist, seeing that there is so little unanimity in the matter of classification. I believe much of this difference of opinion, both in respect of classification and treatment, is due to that want of precision of which I complain.

The mechanical treatment of uterine displacements received its first great impulse from the late Sir Jas. Simpson, to whose inventive genius gynæcology owes so much. But it is to Dr. Hodge that we owe the greatest advance—viz., in the introduction of his most admirable instrument. Here let me say, in justice to that inventor, that men have exercised a great amount of ingenuity, in small things, and with smaller success, in their attempts to improve this instrument, until their name is legion. As Gaillard Thomas says, "All the varieties of lever pessary now employed are modifications of his (Hodge's) original and most valuable idea, and act upon the principle which it developed." But because it has received a little extra bend here, or been straightened out there, or has been narrowed in one place, or widened in another, it must, forsooth, receive the name of the ingenious man who has effected this infinitesimal alteration in it. Where it has been tortured out of all semblance to the original, I willingly grant the inventor the honour of its fatherhood, with all the rights thereto appertaining. But I have no sympathy with such pursuit of notoriety, and such efforts

as tend to deprive a man of that credit which is his due. The fact is, every case requires that the instrument be modified to suit the capacity and shape of the vagina, just as when one enters a boot-maker's shop he has to try on boot after boot until he gets one that fits. No one is more aware of the necessity of this modification than was Dr. Hodge himself. So that if everyone who makes this slight and necessary alteration is to christen the instrument afresh—well, I leave it to your imagination to picture the result.

Retroversion first claims our attention, not only because of its greater frequency but also because of the greater severity of the symptoms that accompany it. If you have remembered what I have laid down as the chief characteristic of this displacement, and if I have made myself clearly understood, you will be prepared for the statement that the only appropriate treatment is that by means of Hodge's pessary.

Time fails me for entering upon any argument on the matter, and the publication of a pamphlet some two years ago "On the Use and Abuse of Pessaries," spares me the necessity of doing so, and I will merely say that, in my opinion, this instrument exerts no direct action on the body, but acts by drawing the cervix back into its normal position, by which means also the body is made to rise out of the pelvis. Let me here say that an intra-uterine stem should not be used for a genuine and uncomplicated retroversion, and that, because this practice has now fallen into disuse, a fact of which West makes a great deal in his opposition to mechanical treatment, we should not, therefore, cast discredit on the principle. For as MacDowell's 13 ovariectomies opened up the way to the present glorious position of that operation, so Sir James Simpson's intra-uterine supporter was the first step towards that more precise and rational method which now obtains, though I regret to say, only partially.

Just the reverse of what I have been saying of retroversion holds good in the case of retroflexion, which can be treated satisfactorily only by some such instrument as Meadows's compound stem, than which I know no better. And let me say that I have listened with incredulity, if not amazement, to the statement, not seldom heard within these walls, that the speakers were in the habit of treating cases of retroflexion by simply turning the uterus forward by means of the sound, and I regret to find that our author is not free from the charge of this heresy, either in his systematic work, or in the paper before us. Far as it is from being true, even in the case of retroversion, that a cure has been thus

effected, as even West testifies, it is much wider of the mark in the case of retroflexion. *A priori* reasoning is against it, the physical properties of the organ are against it, and practice confirms what theory suggests. Any one who should have the opportunity, as I have had, of handling a retroflected uterus in the living subject, will at once see and be convinced, from the persistence with which the uterus returns to its bent condition after being straightened, that some such combined support as this instrument affords can alone avail anything.

With regard to anteversion, I have only to say that as it is the form of displacement which is the least in degree, for anatomical reasons, with which I need not detain you, so it is accompanied by fewer symptoms than any other, and calls least for treatment. This is so far fortunate, for, slight as is the displacement, it is yet the most difficult to treat mechanically. May not these circumstances also be held as in great measure accounting for the views of Scanzoni and others?

Anteflexion would have demanded more extended notice than I can now give it, had I not so recently laid my views before you in considerable detail, as they will be found in the 20th Volume of our Transactions. Premising that the state of congestion was to be met by depletory measures, I then showed that the treatment of this condition depended on the attendant circumstances; that in the early stage it often sufficed to pass the sound occasionally, leaving it in for an hour or two each time; that when there was constriction of the internal os—a fact of which some denied the existence, but of which I now show you the evidence, written, as it were, on this laminaria tent—then bilateral division of the cervix was necessary, and that when the flexion was very pronounced, some form of intra-uterine stem was ultimately required. As confirmatory of my views in this respect, I must ask you to allow me to read the following short extract from the work of one of the foremost in the great Transatlantic School of Gynæcology. I refer to Dr. Goodell, of Philadelphia. He says, “Some four years ago I wrote a series of articles for the *Medical and Surgical Reporter* of Philadelphia, in which I termed this instrument a good one, a very good one—to watch. I had then just passed through an unpleasant experience with it in two cases. . . . With this unhappy experience fresh in my mind, I was led to condemn in these articles the use of the intra-uterine stem. But, since then, a riper experience has taught

me a good deal about this pessary, and has wholly changed my views with regard to its use. I now hold that there are certain stubborn cases of ante flexion, and, for the matter of that, of retro flexion too, which can be satisfactorily treated in no other way than by this stem. Not a month now passes without finding one or more of my patients under its use. So changed, indeed, are my views on this point, that in a discussion on this instrument, at one of the meetings of the American Gynæcological Society, held in Boston, I stated that I had left two unmarried ladies in Philadelphia, each wearing this kind of pessary."*

Nor have I left myself time to say anything on the important question of rest, except to remark that this idea underlies the principle of the mechanical treatment; that rest, in the ordinary sense of the word, however applicable it may be in the treatment of inflammatory conditions, may easily be carried too far when they are absent; and that it is a most grievous misapplication of this beneficent principle to keep a patient lying on her stomach for months in the vain hope of curing a retroversion.

In conclusion allow me to say, with respect to the cradle pessary, in the treatment of ante flexion, that I have never seen an instance in which it has done any good; that from anatomical considerations which the most cursory examination must supply, I have shown† how it is improbable that it should do any good—nay, that it is impossible that it can do any good in the way represented:—and that, as Dr. Hewitt has seen reason to modify his original instrument, so let me express the hope that he may yet see the necessity of modifying his views also; for I cannot but feel assured that a persistence in these will only hinder the advancement of that art which he has so much at heart, and detract from that full measure of credit to which he must otherwise have attained.

Dr. ROGERS said he was old enough to remember when the use of uterine supports was almost unknown, or denounced by obstetricians. He well remembered one of their past Presidents stating that he never used a pessary of any kind, believing them to be dangerous instruments. Having had to treat for many years past the out-patients of a dispensary and women's hospital, he had found pessaries, especially the Hodge and Zwancke, of great use in displacements, flexions, and falling of the womb. What could be done

* "Lessons in Gynecology," by Dr. Goodell, pp. 124-5.

† "On the Use and Abuse of Pessaries." H. K. Lewis, Gower Street.

for poor women who mangle, iron, wash—for cooks, and servants of all kinds, without such instruments? Was it not the fact that our latest authors, our most recent writers upon gynæcology, are gradually admitting that flexures and their consequences, or sequences, play a most important part in the causation of dysmenorrhœa and other sufferings which women so often endure during a large part of their lives; and Dr. Rogers felt pleasure in thanking the author of the Paper now under discussion, who had ably pointed out the consequences which follow displacements and the necessity of restoring the uterus to its proper position. At the same time, he agreed with Dr. Gervis and others that the length of time many of the patients were kept recumbent must be more or less an evil and, he thought, should be avoided. He thought, the larger number of Dr. Hewitt's cases, in the Paper before the Society, were anteflexions, and were treated by his cradle pessary, an instrument which he (Dr. Rogers) had long ago been obliged to discard, on account of the troubles and mischiefs it caused, especially in married life. One of the most common troubles in anteflexion was the pressure on the bladder, and as a consequence frequent micturition. The cradle pessary added greatly to this trouble, and as the anterior wall of the vagina was shorter than the posterior, and did not pass up as high, the pessary could not raise up or remove this flexure, and it added additional troubles to those already existing. The anteflexion pessary of Dr. Hodge had likewise failed in his hands, while the one for retroflexion had been eminently successful. It was the disappointment he so often experienced in treating anteflexions that induced him to use Dr. Greenhalgh's elastic internal stem, as also the internal stems of Dr. Wynn Williams and others. Although he well knew that in the early period of their use much mischief and deaths had unfortunately followed their use, and that they had been denounced by the Academy of Paris, by M. Aran, by Scanzoni, and by other gynæcologists in England, yet he (Dr. Rogers) had at length thought it right to try them, using all proper precautions, by leechings, douchings, baths, and medicaments, to remove congestion or inflammation before the stems were placed in the womb. He had found their use far less dangerous than he had at one time feared: indeed, up to this moment he had not had a fatal case, and only one or two instances had occurred in which the instrument was not well borne. In most cases, great relief had followed their use, and he knew of many in which they had been worn for more than a year with signal relief and benefit.

Dr. SAVAGE said that arguments, long or short, were scarcely needed to show the propriety of using stems for uterine deviations when they really were the cause of suffering, which often was not the case. It was plain that flexions could be redressed by the stem only, and the attending deviation by some additional mechanism to keep the stem in the right direction. Sir James Simpson's well-known contrivance was theoretically perfect: that of Dr. Wynn Williams nearly so. Pessaries, without stems, merely kept the uterus out of the vagina. Those like that of Hodge effected this best, for one thing, because they distended the vagina laterally. A few minutes' attentive consideration over the anatomical relations of the parts concerned, would show that pessaries distending the vagina in the contrary direction, if endured, relieved only so long as they were worn, leaving matters worse than before when they were withdrawn: herein was the great fault of Dr. Hewitt's cradle. But going back to stems, Dr. Savage on a former occasion, the same subject being then under debate, brought to the notice of the Society nine cases of death caused by stems; death in each case being due to rapid peritonitis. The stems then in use were certainly coarse, ill-fashioned things, yet the stem after the modern fashion had been the cause of much mischief: he would mention a typical instance of this (omitting detail). A young married lady, vainly sighing over her unfruitfulness, sought professional aid. The diagnosis was, *uterine displacement, with narrowing of the cervical canal*. Treatment—reduction of the supposed displacement by means of the sound, and dilatation of the canal by metallic bougies: this failing a stem was introduced and left there. *Result*—within a week pain in the pelvic region, getting worse from day to day; at last tolerable only under the use of opiates, and soon followed by nausea, distaste for food, and rapid loss of flesh. Consultation: the treatment held to be entirely to blame: to be discontinued. Under suitable treatment tardy recovery; when last seen, many months afterwards, the loss of flesh not completely regained. Practitioners forward in advocating treatment of this kind never seemed aware of disasters of the above sort. Not one of the deaths before mentioned, nor any instance of the latter, had been recorded: a grievous wrong surely done to the profession and to medical science. Dr. Savage's purpose was not to denounce mechanical treatment in uterine disorders. He was disposed to complain of the heedless prosecution of it; possible disasters ignored; a stem introduced; the patient dismissed there and then; in her subsequent trouble

she has recourse to a second practitioner who relieves her by removing the instrument, and naturally denounces the practice. Nothing apparently had been said about the important practical distinction between congenital and acquired uterine deviations. The former invariably defied instrumentation, and possibly they predominate in the list of disastrous cases : but who could pretend to diagnose between the two ? Flexions soon become irremediable by reason of a thickening of tissue at the bend. In order to introduce a stem, great force must be employed, or a way made for it by incising the thickened tissue. Discomforts attributed to uterine deviations are often curable by attention to health ; such deviations which do not cause partial inversion of the vagina, for instance, and this can hardly be determined by the ordinary digital examination. A single finger is enough, the patient standing. The finger should find the organ movable, but balanced on its tip ; should this come in contact with any other part beside the end of the cervix, that part is out of place.

Dr. MATTHEWS DUNCAN was not prepared to make any lengthened statement of his views as he would have wished to do, but he would not let the opportunity pass in absolute silence. The paper and speeches in support of it were of great value, but he agreed with neither the substance nor the tenor of them. It was advantageous to consider displacement without descent, and he would confine his remarks to this limited subject. Displacement without descent was, so far at least, an uncomplicated affection. Descent in addition to displacement introduced no new kind of disease, but a changed set of conditions not so simple as those of displacement without descent. Now, he regarded the morbid importance of displacement as being much exaggerated. It would be nearer the truth to say it had little or no importance. Then, the wide range of symptoms attributed to displacement he considered quite unjustified by clinical facts. The treatment of displacement without descent, whether it was desirable or not, was an utter failure ; and displacement was never cured, in the sense that the uterus afterwards remained in place without a pessary.

Mr. KNOWSLEY THORNTON.—Though I cannot claim a long experience like that of Dr. Matthews Duncan, I have paid special attention to this subject, and should like to say a few words. I believe if we could always treat our uterine cases under such favourable conditions as those which attended the treatment of the cases related in Dr. Graily Hewitt's Paper, we should always get

results as good as those which he has obtained. The results would, however, I think, have been the same, with such careful feeding, nursing, and occasional replacement of the uterus with the sound, without the use of either special postures or special pessaries. I think Dr. Duncan has touched the keynote of the whole question of uterine displacements in drawing our attention to displacements without descent and with it. It is the latter cases only that give trouble, and require our aid; the mere backward or forward displacement is of no consequence. The symptoms which lead to the seeking of our aid are due to the descent and dragging on the ovaries and broad ligaments, with consequent interference with the functions of bladder or bowel. Extreme retro- or ante-flexion without descent may, from mechanical obstruction to the cervical canal, cause trouble, but this is easily remedied by the occasional use of graduated sounds. With regard to stem pessaries, I do not believe they ever really cure, and I believe they often do incalculable mischief. Those who put them in do not often see their ill-effects, for the patients, finding themselves worse instead of better, seek other advice. I believe those who take out pessaries, as a rule, do infinitely more good and infinitely less harm than those who put them in. I had some years ago a fatal case of peritonitis due to the use of one of Meadows's stems, though every care was taken in preparing the uterus for its introduction, and it was only in twenty-four hours. It is the only bad case I have had from the use of a stem, and I will take care that it remains so. I firmly believe that if perfect tables of their cases were published by those who use stem pessaries—tables as perfect as those now published of some great surgical operations—the profession would soon condemn their use entirely. When they do not do harm, they may in some cases give *temporary* relief, but these are the cases of acquired flexion. In the congenital cases their use is always dangerous and they cannot do good. But have we any certain means of diagnosing between an acquired and congenital flexion? If so, those who possess the information have never published it.

Dr. CORY.—With regard to the danger of stem pessaries, I may say that I have had recently (this year) a case very similar to the one just briefly related by Mr. Thornton. This was a patient, aged twenty-two, who was taken into St. Thomas's Hospital for the purpose of treating an ante-flexion of her uterus with a stem pessary. She was kept in the hospital some days before the instrument was introduced. In twenty-four hours after its introduction it was removed

on account of pain, and the patient died from peritonitis within ninety-six hours of its removal. In this case every precaution was taken, and at the post-mortem examination no injury to the uterus was found.

Dr. CARTER looked upon the general treatment as the curative agent in Dr. Hewitt's cases. He (Dr. Carter) rarely used intra-uterine stems, for he had seen some cases in which fatal results had followed their use. He thought it probable that the cases of uterine dyskinesia, described in the paper, were what some would call hysterical.

The PRESIDENT said that this subject had been so often discussed by the Society, and so many members had taken part in the debate, that he hesitated to trespass on the patience of the Society by any observations of his own, especially as he had more than once availed himself of opportunities of expressing his opinions with regard to it. He could not, however, deprive himself of the pleasure of stating his conviction that Dr. Hewitt's careful and long-continued study of the etiology and effects of uterine flexions had done much towards improving our knowledge of a really very important class of disease. It was only fair to Dr. Hewitt to admit, moreover, that he (the President) was more convinced of the importance of flexions in producing many very serious forms of uterine illness than he had been previous to a study of Dr. Hewitt's opinions with regard to them. Nothing to his mind was more clearly established than that in a large number of cases flexion was at the bottom of illness and suffering, often extending undetected and unrelieved over a long period of years, and rapidly ameliorated or even cured when suitable mechanical means of treatment were adopted. To admit this, however, was a very different thing indeed from granting Dr. Hewitt's contention that flexions were the *fons et origo mali* in all forms of uterine suffering, that they formed the key to gynæcology, and that if we knew how to detect and cure them we might leave everything else alone. He thought he was hardly misrepresenting Dr. Hewitt if he said that was pretty much what his views came to ; and against any such theory of uterine disease he must respectfully protest. To his mind it was unscientific and unproved, and, in the hands of a less skilful and judicious gynæcologist than Dr. Hewitt, might lead to incalculable mischief. To show, for example, the one-sidedness of this theory, it seemed to him totally impossible that in anything like the number of serious cases of uterine disease as those tabulated the important and far from uncommon form of uterine

disease known as endometritis, uterine catarrh and the like, could possibly have been absent, and, in refusing to recognize the importance of such conditions, Dr. Hewitt and all who follow his teaching deprive themselves of a most valuable aid in treatment, and really prolong the sufferings of their patients. He (the President) was not going to trouble the Society by any exposition of his own views of treatment. His object was to protest, with all the respect that was justly due to Dr. Hewitt's weighty authority, against the adoption of a one-sided theory, and to plead for a catholic and broad view of the subject. It was only by studying uterine diseases in such a spirit that we could avoid the imputation, not always altogether unfounded, that gynaecologists were fond of hobbies, and unscientific and empirical in their methods of treatment.

Dr. GRAILY HEWITT, in reply, stated, in reference to the observations which had fallen from the President, that a reference to the last edition of his work, published seven years ago, would show that flexions of the uterus were not assigned that exclusive importance which the President's observations would imply. On the contrary, he had all along insisted on the coexistence of an abnormal condition of the tissues of the uterus. The present Paper was an amplification of the latter part of the subject. Again, the word "mechanical," which he had used, had been frequently misinterpreted. By "mechanical" was meant the influence of mechanical agencies in bringing about those alterations known as distortions. It did not mean the employment of pessaries in any and every case. Further, though a mechanical treatment might be required, that did not imply of necessity the use of a pessary, for there were other means, position, rest, &c., which were really mechanical in their operation. Dr. Gervis had apparently misunderstood him in reference to the amount of rest which had been enforced in the cases related. It was only in the case of patients who were actually bed-ridden that such prolonged rest had been required. Other patients, less ill, were not so restricted. With reference to the necessity for removal of pessaries from time to time, no doubt that was necessary, but his idea on the subject of pessaries was, that they acted as the splint does in cases of fracture, and that the object of their employment was to help to sustain the uterus in a proper shape for a considerable time, while suitable measures were being taken to enable the tissues of this organ to be strengthened, and set in a better shape, and this being the case, a continuity of action was essential. Dr. Routh and Dr. Bantock had spoken of the advantages of the

stem treatment in cases of flexion. He considered the use of stems a valuable means of treatment, but he felt bound to say that he preferred other methods. The cradle pessary had been severely criticized by some of the speakers. He could only understand the failure of this instrument in the hands of others by supposing that the instruments used were not made on his own model. He had seen many wrongly constructed, the fault being that the base of the triangle described by the instrument was too long and the height too little. He had himself used this pessary with very great frequency and for some years, and with almost uniform satisfaction to his patients, as a part of the treatment in cases of anteversion and flexion. Dr. Bantock's very valuable remarks there was no time to reply to at proper length: a more minute classification of flexions was no doubt required. With reference to the necessity for use of stems in cases of retroflexion, he would assert, however, that he had himself cured very many cases of severe retroflexion by the combined use of the Hodge pessary and repeated unbending of the uterus by means of the sound. Dr. Rogers appeared to have misunderstood the paper, which was not on cases of anteversion and flexion alone, but on cases of retroflexion also. In reply to Dr. Savage he had not found generally a difficulty in the diagnosis of congenital distortions. He agreed with Dr. Savage in respect to the value of examination of the patient in the erect position in some cases. He was surprised to hear Dr. Matthews Duncan's expression of opinion as to the absence of symptoms in cases of flexions, unless associated with descent of the uterus. His own experience was that descent of the uterus was almost universally present in case of flexion; it formed an almost essential part of the disorder. He had seen in extreme cases the fundus uteri actually protruded through the rectal aperture, so low had it fallen: the os uteri was often quite close to the coccyx in cases of forward displacement. As to the possibility of curing cases such as those described in his paper without internal treatment, as Mr. Thornton seemed to hint at, he could not assent to that, although he considered the general treatment, to which great attention had been paid in these cases, both valuable and indispensable. He would thank Dr. Carter for calling attention to the fact that a principal point in the paper had not been discussed at all by the various speakers. In conclusion Dr. Graily Hewitt expressed his obligation to the Society for the consideration the Paper had received.

OBSTETRICAL SOCIETY OF EDINBURGH.

*Meeting, Wednesday, February 11th.*Dr. ANGUS MACDONALD, *President, in the Chair.*

Dr. CROOM read a note on a case of intra-uterine hydrocephalus, with rupture of the uterus, which appeared in this Journal at p. 138.

Professor SIMPSON had little special to say, as the pathology, diagnosis, and treatment had been fully taken up in Dr. Macdonald's Paper of last session, and the discussion on it. It was interesting to note that there was no distinct evidence of rupture except the cessation of the pains. From his early experience on this point he had always insisted on this to his students. In his first case there was, apart from a little hæmorrhage, nothing to lead one to suspect such a grave occurrence. He agreed with Dr. Croom as to the avoidance of forceps in hydrocephalus. Forceps of the ordinary construction were not adapted for application to such an enlarged head. They only added to its bulk, and favoured uterine laceration. Hence the case would impress this fact on his own mind, and help him to enforce it on his students.

Dr. STEWART had a case of hydrocephalus in the North, where a midwife had been in attendance for two days. He perforated with a trocar and canula, and extracted with forceps. The woman died on the third day. In this case he suspected rupture of the uterus.

Dr. UNDERHILL thought the case illustrated the danger of delay. The woman was only sixteen hours in labour, and yet the uterus ruptured. Had the medical men perforated at once, very probably the woman's life would have been saved.

Dr. BRUCE had, in all his experience, never met with a case of hydrocephalus. He was interested in Dr. Croom's case, and agreed with him as to the treatment. He thought that valuable time was lost in sending for the forceps, which would have been avoided had the medical man followed his rule of always carrying the forceps with him. He never had a case of rupture of the uterus, which might partly be accounted for by his habit of not allowing a labour to go on too long without interfering.

Dr. WILSON had had one case of hydrocephalus, which he had shown to the Society on a previous occasion. The child was a twin, and presented the breech. He had some difficulty in

extracting the head, but did not recognize the hydrocephalus until the child was born.

The PRESIDENT wished to express his pleasure at listening to Dr. Croom's interesting communication. It was of great importance that such experience should be recorded, as it could not be too strongly impressed on the profession that delay in delivery in such cases might cause the death of the mother. He would have liked if Dr. Croom had, in the Paper, discovered the importance of external manipulation of the abdomen as a means of diagnosis in such cases. This was a most valuable means of examination not sufficiently noticed in our books. It was fully recognized on the Continent, and a recent article by Mundé of New York had given a fair *résumé* of what was known on the subject. By careful and cautious manipulation they could diagnose hydrocephalus even when the breech presented, unless hydramnios were present. They all knew how important the combined external and internal examination was in gynæcology; and now they were beginning to see its importance in obstetrics. He remembered, in the discussion on his own Paper, that Dr. Simpson had pointed this out. He wished to explain, however, that he had practised the bimanual in his case, although it did not bulk in his Paper. He was sorry Dr. Keith had never published his thesis on hydrocephalus, as it was almost inaccessible; and as one result of this, other gynæcologists—Dr. Keiller among them—were getting credit for Keith's work. In regard to the diagnosis, they should remember that rupture was generally slow, and, as Dr. Simpson had said, the symptoms were not very well marked. The cervical segment dilated, thinned, and at last yielded noiselessly. We did not know accurately how ruptures of the body of the uterus occurred, though doubtless they did occasionally, but happily very rarely, appear. He had never seen such a rupture, although he had had cases of rupture of the cervix. In one of his cases there was no fixed time when the rupture occurred. As to the treatment in hydrocephalus, he agreed with Professor Simpson in holding that the use of forceps was dangerous. In his recorded case he had put them on, but they did no good.

Dr. CROOM thanked the Fellows for their remarks on his Paper. He was interested in the fact that such an experienced practitioner as Dr. Bruce had never seen a case of hydrocephalus. In regard to the President's remarks, he would venture only one criticism. He quite agreed with him as to the importance of

external abdominal examination, and had systematically taught and practised this method for years ; but he thought that, in the case of a woman *in articulo mortis*, prompt treatment was the more urgent necessity.

On the Position and Distension of the Female Bladder.

By D. BERRY HART, M.B.

Assistant to the Professor of Midwifery in the University of Edinburgh, Secretary to the Obstetrical Society, Edinburgh.

IN the present communication I purpose attempting to clear up some hitherto unexplained facts in regard to the female bladder. It is probably every gynæcologist's experience that in certain circumstances the female bladder may seem very much distended, so far as supra-pubic palpation and inspection give evidence, but that when the catheter is passed, an unexpectedly small quantity of urine is drawn off. The female urethra is short, averaging only $1\frac{3}{8}$ inch in length, but yet gynæcologists use, and use rightly, a long flexible gum elastic catheter. Finally, surgeons who deal with retention of urine in the male do not meet with such anomalies. Before trying to reconcile these facts it will be best to narrate three contrasted and carefully observed cases:—

CASE I.—A. B., æt. eighteen, was seen in Professor Simpson's outpatient clinique on account of white discharge and pain on making water. Ocular examination of the external parts showed a recent laceration of the hymen and glairy discharge from the ostium vaginæ. On vaginal examination, the cervix was found normal in all respects, except that the os looked downwards and forwards. Bimanually, a fluctuating tumour, reaching up a little above the level of the pelvic brim, was felt in front of the partially retroverted unimpregnated uterus. The catheter introduced drew off 27 oz. of urine.

CASE II.—Mrs. C. was admitted to Professor Simpson's ward on account of retention of urine, necessitating catheterism. Bimanual examination showed a large tumour in the hollow of the sacrum, marked elevation of the os uteri above the symphysis, and a fluctuating tumour in the hypogastric region, reaching almost as high as the umbilicus. This physical examination and the history of four months' amenorrhœa made the diagnosis of retroversion of the gravid uterus perfectly plain. What concerns us here, however,

is that the bladder contained only about 23 oz. of urine—a less amount than in the previous instance.

CASE III.—Along with Professor Simpson I saw at the Maternity Hospital a patient with rigidity of os uteri, supposed to necessitate early application of the long forceps. Supra-pubic inspection and palpation revealed a fluctuating tumour, bluntly triangular in shape, with the apex down. Exact measurements showed that vertically it extended for 4 inches, and transversely for about the same. The catheter, passed deeply up, drew off only $2\frac{1}{2}$ oz. of clear urine. Some time afterwards the same apparent distension occurred, when $3\frac{1}{2}$ oz. were removed. After the bladder was thus emptied, the furrow between cervix and uterus could be felt two fingers'-breadths above the symphysis pubis.

These three cases are typical instances, and evidently call for explanation.

The empty female bladder forms with the urethra a Y-shaped outline on vertical section, the leg of the Y forming the urethra, and the limbs the bladder proper. It has a pubic, peritoneal, and vaginal side. Its vaginal side is uniformly straight, is closely incorporated with the anterior vaginal wall and anterior surface of cervix to about its junction with the body of the uterus proper. The anterior side of the bladder lies behind the pubis, but is not parallel to it. It only touches the symphysis near the top of the latter, and then runs back at an acute angle to the urethra. Thus the greater portion of the posterior surface of the pubis is not in contact with bladder or urethra, and in this way there is a definite angular space here filled with loose fat. This looseness of connexion between pubis and bladder is of the highest importance, and is found in all pelves and figured in drawings of vertical sections taken from actual specimens. Skene, in his admirable work,* alleges that "anteriorly the bladder is closely attached to the posterior face of the symphysis pubis." This, however, is quite erroneous.

The peritoneum passes on to the summit of the bladder a little above the level of the top of the symphysis pubis, and is thence reflected on to the anterior surface of the cervix uteri. When the bladder is empty, there is an inappreciable space of the posterior surface of the abdominal wall uncovered by peritoneum. The connexion of peritoneum to the abdominal

* Skene's "Diseases of Bladder and Urethra in Women," 1878.

wall and bladder summit is not an intimate one. Finally, the empty female bladder has an antero-posterior, but practically no vertical diameter.

The bladder arrangements in the advanced foetus and child in infancy are curiously different from those of the adult. The anterior surface of the bladder in the foetus lies behind the abdominal wall ; the empty bladder, even, is an abdominal organ, and has no antero-posterior, but only a vertical diameter. Its relations and diameters are thus quite the reverse of what it ultimately possesses. What the precise changes are which bring about its final state in the adult I do not know. There is probably a greater development of the pelvis than of the pelvic contents, and perhaps some sinking of the bladder. At any rate, the adult female bladder, when empty, becomes a pelvic organ. It has not, however, lost its power of becoming an abdominal one. The loose pubic attachment permits of its passage up, while the firm posterior part of the pelvis, by resisting its downward distension, helps this, so far as distension is concerned, by acting as a fixed point.

In the first case narrated, the bladder was simply distended. It had pushed the intestines up, tilted the uterus back, but its posterior wall was still in its normal position. The peritoneum was still on the summit of the bladder, but of course was stripped to a certain extent from the lower part of the posterior aspect of the anterior abdominal wall. Thus the bladder, though its summit was only at the level of the brim, was considerably distended.

Now, in the retroversion of the gravid uterus, the bladder was certainly distended. Supra-pubic palpation, however, misled as to the amount of distension, and for the following reason :—The cervix uteri was tilted high up behind the symphysis pubis, and consequently the bladder, to whose posterior angle the cervix is attached, was swung up, as it were, into the abdominal cavity, a movement permitted by the anatomical relations behind the pubis. The peritoneal relations were the same as in Case I. In the third case the bladder was of course drawn up, as I have already shown,* and its relations were as follows :—In front, it touched anterior abdominal wall ; behind, the child's head, the cervix, of course, intervening. In this way the anterior and posterior vesical walls were in contact, and thus a film of urine, as it were, gave the

* *Edinburgh Medical Journal*, April, 1879.

appearance of distension. As I have before pointed out, the peritoneum is stripped off the bladder more or less.*

The conclusions advanced are :—1. The retro-pubic anatomical attachments of the bladder admit of its distension and passage upwards. 2. Supra-pubic palpation gives no sure indication of the amount of urinary distension. 3. When the summit of the bladder is above the pubis, it may be—*a*, a pure distension (Case I.) ; *b*, distension *plus* a tilting up (Case II.) ; *c*, drawing up of the bladder, with almost no distension (Case III.).

The reason why gynæcologists use a long gum elastic catheter is very evident. I already described the empty bladder in the non-parturient female as forming a Y-shaped figure on vertical section. During parturition, however, the urethra is elongated, and forms with the bladder, on vertical section, a continuous tube.† Only that part of the bladder above the pubis is available for the reception of urine, so that in this way the path for the catheter to travel is increased. In Braune's section of a woman in labour, the distance for the catheter to travel is about four and a half inches, more than twice what it is normally.

In the last place, the distended female adult bladder is quite comparable in its anatomical relations to the distended foetal one. This may point to the explanation that the ultimate changes which convert the urinary bladder from an abdominal organ into a pelvic one are chiefly in the bony pelvis itself.

Professor SIMPSON remarked that the Paper was one, first, of scientific value, but with a singularly interesting practical bearing. The observations were absolutely correct, as he knew, more especially in the case of the parturient female. He had no special remark to make, except that the subject was of great interest, and one in which there was room for investigation. The bladder, like the vomer and uterus, was never exactly central. He hoped Dr. Hart would work up the other displacements of the bladder.

Dr. T. R. RONALDSON had often noticed the fact, that during labour the bladder seemed very much distended, and yet only a small quantity of urine could be drawn off.

Dr. JAMES RITCHIE had had the same experience as Dr. Ronaldson. He had a case lately where the distended

* *Edinburgh Medical Journal*, September, 1879. "Edinburgh Obstetrical Transactions," Part II. p. 142.

† See "Die Lage des Foetus," Braune, Tab. C.

bladder could be distinctly felt displaced laterally on abdominal palpation.

The PRESIDENT had been exceedingly interested in the Paper, and admired its accuracy and originality.

Report of the Edinburgh Royal Maternity and Simpson Memorial Hospital for the Quarter ending 31st January, 1880.

By ALEXANDER RUSSELL SIMPSON, M.D., F.R.S.E.

Professor of Medicine and Midwifery and the Diseases of Women and Children in the University of Edinburgh.

WHEN I entered on my duties as physician to the hospital, its sanitary condition was by no means satisfactory, as was indicated in the reports of the two preceding quarters. Finding that there was a disagreeable smell in the lower delivery rooms, Dr. Croom and I got our energetic health officer, Dr. Littlejohn, to inspect the premises. He promptly ordered the removal of the sinks from the delivery rooms; for although they were supposed to be properly trapped, and were said not to be in communication with the main drain, there was no doubt that the bad smell alluded to emanated from them. In a delivery room sinks are apt to become the receptacle of blood and other matters liable to decomposition. I need hardly add that a very thorough disinfection of all the apartments of the building was carried out.

Whether it was a result of these measures I am not quite prepared to say, but during the past quarter there was no mortality among the lying-in women, and the morbidity was trifling. The annals of the period are happily altogether dull—so dull, that I only trouble the Society with a brief record by way of following up the good example of my colleagues who have already reported.

Mr. H. Spence Reid, M.B., and Mr. A. Murray Oram, M.B., had been appointed house-surgeons for the quarter. Mr. Reid having resigned in January, Mr. Charles A. M'Lean, M.B., was appointed to the vacant office. To these gentlemen I am indebted for the following statistics and records of cases.

The total number of cases treated in the extern and intern departments was 156.

Extern Cases.—The extern cases numbered 112, of which there were 14 primiparæ and 98 multiparæ.

The average age of the former was twenty-one years, of the latter twenty-three years.

As regards the mortality, there were no deaths among the mothers. There were 8 foetal deaths, 6 being still-born, and 2 dying after delivery, from debility.

In two cases forceps were applied ; the indication in one case being slightly uniformly contracted pelvis, which required the application of the instrument to bring the head through the brim and cavity after the os had been fully dilated. In the other patient there was accidental hæmorrhage, complicating a brow presentation. The forceps were applied when the forehead was at the vulva and the brow behind the pubic arch. On extraction, the occiput came over the perineum first, and then the forehead and face came under the symphysis pubis.

Intern Cases.—The cases treated inside the hospital were 42 in number—24 being primiparæ, and 18 multiparæ.

Ages of Patients.—The average age in the case of the primiparæ was twenty-three years, in the multiparæ twenty-seven years ; so that the patients treated within the Institution were, on an average, older than those who preferred to be attended outside.

Duration of Labour.—The average duration of labour in these intern patients was, in the case of the primiparæ—1st stage, 12 hours ; 2nd stage, 2 hours ; 3rd stage, 10 minutes ; making an average total duration of 14 hours 10 minutes. In the case of the multiparæ, the average duration of the 1st stage was 7 hours 49 minutes ; the 2nd stage, 1 hour 31 minutes ; 3rd stage, 14 minutes ; making the average total duration 9 hours and 34 minutes. The number of cases is too small to make the proportional figures of much value ; but the difference in duration of the third stage in the two classes—that in multiparæ lasting nearly one-third longer than in primiparæ—makes it worth while to inquire whether, in a wider area of observation, such a difference will be found to prevail.

Presentations and Positions.—As regards the *presentation* of the children, all the 44 patients had vertex presentations, with the exception of one of the foetuses in a twin case, which presented by the breech.

As regards the *position* in the *multiparæ*, we have the following proportion in 14 cases :—

L.O.A.=8 ; R.O.P.=4 ; R.O.A.=1 ; L.O.P.=1.

In the *primiparæ*, 22 cases :—

L.O.A.=16 ; R.O.P.=3 ; R.O.A.=2 ; L.O.P.=1.

Plural Births.—There were two cases of twins, both in multiparous patients :—

(1.) 1st child, vertex ; R.O.P.

2nd „ breech ; position not ascertained.

(2.) 1st child, vertex ; R.O.P.

2nd „ „ ; L.O.A.

Sex of the Children.—All the four twin children were males, and there were in all 11 males and 9 females among the children of the *multiparæ*, and 14 males and 12 females among the children of the *primiparæ*.

Mortality.—There was no mortality among the mothers. There were 4 foetal deaths, apart from the twin cases, where the foetuses were premature and still-born.

Instrumental Labour.—There was 1 instrumental labour, a forceps case, which is reported at length below.

The average duration of the patients' residence in the hospital was 17 days. This long duration was due to several patients having been detained in hospital for charitable reasons during the severe weather, and especially to the circumstance that one patient was in hospital for 60 days, suffering from mammary abscesses, while the forceps case remained in hospital for 40 days, as she only slowly recovered her strength.

Conditions of Uterus, &c., on Dismissal.—From examination made of the patients on dismissal, the following results were obtained :—

In 15 out of 16 examined, the fundus uteri was to the front, and felt at points varying from on a level with the brim of the pelvis to 3 inches above it. In one case it was retroflexed.

In all these cases the os uteri was fissured, in 3 cases to the right side only, in 1 posteriorly, and in the others to the left side or transversely. On the 3 cases in which the fissuring occurred on the right side only, it is worthy of note that in two of them the occiput was placed during labour in the right side of the pelvis.

Special Cases.—Of individual cases I have selected the following as those which alone have any claim to a more complete record :—

CASE I.—*Slight Ante-Partum Hæmorrhage ; Tedious Labour ; Forceps Delivery ; Prolonged Convalescence.*

E. M., aged twenty-one, admitted December 8, 1879 ; primi-para ; has had one previous miscarriage. Last menstruation was in the beginning of March, 1879 ; quickening was in July. Patient was admitted about 11.30 A.M., complaining of a discharge of blood from the vaginal orifice, which began about 6 A.M., but was not profuse. On examination by the house-surgeon the vagina was found to be small ; the os uteri was patulous, easily admitting one finger. On sweeping the finger round the presenting vertex, no abnormality could be detected. On withdrawing the examining finger it was covered with blood mixed with mucus. The foetal heart could be heard. Patient was ordered to keep quiet, and a drachm of the liquid extract of ergot was administered. There was no history of any injury having been sustained by the patient. Hitherto she had not complained of any labour pains. At noon there was some discharge of liquor amnii, but the os uteri was no larger than it was at the time of previous examination. After this discharge hæmorrhage ceased. At 3 P.M. labour pains set in, and at 3.30 P.M. the two fingers could be introduced within the os uteri. The pains came on at irregular intervals (usually about every thirty minutes) up to 8 P.M., after which time they recurred every fifteen minutes. They, however, produced little effect upon the size of the os uteri, but gradually increased in frequency, until, at 10 P.M., they recurred every five minutes, but were of short duration. At 12 P.M. patient was in a very excited condition, tossing from side to side, throwing her arms wildly about, and complaining of great thirst. Her lips and tongue were dry, and covered with sordes. The uterine contractions came on about every minute, and lasted for about thirty seconds, the os uteri being at this time the size of half-a-crown. Bimeconate of morphia, gr. $\frac{1}{4}$, was administered subcutaneously. This produced no effect upon patient, so was followed by 20 grains of chloral hydrate twenty minutes subsequently.

It was noted at 2 A.M. the bladder seemed to be well distended, but on passing the catheter only two ounces of urine was drawn off. Ten minutes after noon Professor Simpson returned, and judging that there was now sufficient dilatation of the os uteri to allow of the use of forceps without injury to the cervix, he

delivered the patient by using his own modification of Tarnier's forceps. As the head passed the vulva, $6\frac{3}{4}$ grs. of ergotin were injected into the right buttock.

On being born, the child was in a state of apnœa, necessitating the alternate plunging of it into cold and warm water, and the employment of Schultze's methods for the establishment of respiration. The sex of the child was female; the weight 8 lbs. 10 oz., and the length 21 inches. The caput succedaneum was over left parietal eminence. Both parietal bones overlapped the occipital at the lambdoidal suture.

Circumference of foetal head, 13 inches; bi-parietal diameter, $3\frac{1}{4}$ inches; occipito-mental, $4\frac{3}{4}$ inches; occipito-frontal, $4\frac{1}{2}$ inches; sub-occipito-bregmatic, 4 inches.

The following lesions were produced by the forceps:—1. On foetus—slight facial paralysis on left side; depression in skin over left temple, running down for the length of an inch in front of left ear; abrasion just above right zygomatic arch, 2. On mother—fissure of left labium minus, near pubic arch; fissure of right labium majus, towards its posterior extremity; laceration of vaginal mucous membrane on right side.

Progress.—There was a good deal of swelling of the soft parts in the vagina and round the vaginal orifice, which rendered daily catheterization necessary for two weeks. The child, owing to the paralysis, had to be fed with a spoon for several days after delivery. The paralysis gradually subsided, and the other lesions caused by forceps healed. On tenth day post partum the labial fissures were healing in a satisfactory manner. On making a bimanual examination, the fundus uteri could not be recognized lying anteriorly, as the bladder was distended with urine; but on the urine being withdrawn the fundus was easily detected lying to the front. The progress of the case was satisfactory, though tedious, as patient took a long time to recover her strength.

Discharged well, 14th January, 1880.

On abdominal examination, fundus uteri was not above the pelvic brim. The separated surfaces in the fissured labium minus had cicatrized. The fissure in the labium majus had healed by first intention. On vaginal examination, the vaginal tissue was found to be cicatrized. Os uteri patulous and fissured. Fundus uteri lay well to the front.

CASE II.—*Normal Labour ; Herpes Zoster during Puerperal Week ; Arrest of Lactation ; Mammary Abscesses.*

J. S., æt. twenty-two, admitted 21st November, 1879. Delivered 22nd November, 1879 ; labour normal. Child presented in the first vertex position : female, and healthy. She had some inconvenience with her breasts on the 24th. Nipple shields were given her, and they got somewhat better. On the 29th her temp. rose to $101^{\circ}2$. This was explained by an eruption of herpes zoster on the right side of the thorax which appeared next day. This was treated with lint soaked in carbolic oil. On 4th December the temp. rose to $103, 104-6$. This was caused by an inflamed and tender state of the breasts. Aconite emul. (B.P.) $\mathfrak{m}\mathfrak{v}$ every hour was given. The temp. fell, but on 7th December, 1879, it again rose to 102° . On examination, hard lumps were found on the breasts. Hot fomentations of linimentum belladonnæ applied over breasts. An erysipelatous appearance of the face was observed, and carbolic oil applied.

The *urine* acid, sp. gr. 1024 ; urates ; no albumen. An abscess in right breast was opened ; a large quantity of pus flowed out of the incision. A poultice of linseed meal was afterwards applied to the breast.

Patient was dismissed on 20th January, 1880. The sinuses in the right breast were almost healed, though at some parts the breasts were slightly swollen and indurated. Her left breast had healed altogether.

Two incisions were made on left breast on 17th December, 1879, and another incision on right breast, to open some abscesses which had formed on these places, on 19th December, 1879.

CASE III.—*Normal Labour ; Mammary Abscesses.*

A. M., aged twenty-one ; primipara ; no miscarriages. Last menstruation was in the beginning of March ; period of quickening doubtful. Admitted 5th January, 1880 ; delivered 7th January, 1880. Presentation vertex. Position R.O.P. Duration of first stage, ten hours ; of second stage, two hours ; of third stage, eleven minutes.

Progress.—On the afternoon of the second day patient had shiverings, and complained of pelvic pain. There was tenderness on pressure over the lower part of the abdomen. As the evening temp. was 104° , tinct. aconit. (B.P.) $\mathfrak{m}\mathfrak{j}$ were administered

several times during the night, and the abdomen below the umbilicus was painted with tinct. iodi. On the third morning the pulse was 126, and the temp. $100^{\circ}2$. The abdominal tenderness was better. Patient made her water without difficulty, and the bowels were moved by aperient medicine. Lactation was satisfactory. On the third evening the pulse was 128, regular, full, and compressible, while temp. was 104° . On administering castor-oil in the morning, patient vomited. The evacuation of the bowels was secured by compound liquorice powder. Tinct. aconit. (B.P.) $\mathfrak{mij}$ were ordered to be taken every hour during the night, during which the following shows the temperature:— 2 A.M., $105^{\circ}2$; 4 A.M., 104° ; 6 A.M., $104^{\circ}3$; 8 A.M., 104° .

On the morning of the 4th day the pulse was 112, and the temp. 103° . Abdomen tender to the touch, and tympanitic. Lochial discharge slightly foetid. Milk plentiful. Bowels opened loosely once in the early morning. Great thirst, and dryness of lips and tongue. Patient was removed into special ward. The whole of the abdomen was painted with tinct. iodi, which is to be repeated thrice daily. Vaginal carbolized injections to be used thrice daily instead of twice. Aconite discontinued, and ten-grain doses of sulphate of quinine substituted, which are to be repeated as often as is thought necessary. At 2.15 P.M. the temp. was $102^{\circ}7$, and patient vomited the quinine which had just been given to her. The thirst was treated by giving tinct. ferri. perchlor. $\mathfrak{m x}$ in a wineglassful of water as a drink. Patient found it impossible to keep the quinine on her stomach, so aconite was again had recourse to in doses of five minims of the B.P. tincture every forty-five minutes. The first dose was given at 6.15 P.M., when the temp. was over 100° . At 7 P.M. the temp. was $99^{\circ}6$, and at 8 P.M. 97° . At 8.20 P.M. aconite was ordered to be given every hour and a half, instead of every forty-five minutes.

5th day, A.M.—Patient better. Pelvic tenderness much diminished. Has had diarrhoea through the night. Temp., 101° ; pulse, 96. Aconite to be taken every hour in five-minim doses. Evening temp., $103^{\circ}2$; pulse, 120.

6th day, A.M.—Temp., $102^{\circ}4$; pulse, 100. Tenderness on pressure below the umbilicus. Bowels not moved for the last forty-two hours. Ordered liquorice powder. Evening temp., $102^{\circ}4$; pulse, 120.

7th day, A.M.—Pulse 114; temp., $100^{\circ}6$. P.M.—Pulse, 104; temp., $99^{\circ}4$.

8th day, A.M.—Pulse, 88 ; temp., 95°. Aconite discontinued. Complains of scalding pain about meatus urinarius on micturition, the cause of which is a slight fissure. Glycerin carbolic (1 in 16) and ungt. zinc. oxid. to be applied to fissure. P.M.—Pulse, 116 ; temp., 101°·2.

9th day, A.M.—Pulse, 90 ; temp., 96°·8. Scalding pain better. Evening temp., 98°·6 ; pulse, 96.

12th day, A.M.—Pulse, 96 ; temp., 98°. Evening pulse, 120 ; temp., 101°·4. During afternoon patient was removed into general ward. At night the left mamma was found to be hardened just above the nipple, and to be engorged and painful. Hot fomentations were applied to the breast, and patient took liquorice powder. No milk could be extracted from the breast, either by applying the child or the breast-pump.

13th day, A.M.—Pulse, 132 ; temp., 100°. Breast still hard and painful. Bowels not moved by the powder. Ordered castor-oil, and efforts to be made to draw off milk from the breast. P.M.—Pulse, 120 ; temp., 103°. Breast very painful, engorged, and tense. All efforts to extract milk have failed. Bowels freely opened. Tinct. belladonna to be sprinkled over the fomentations, and also to be rubbed into the breast. Patient to take tinct. aconit. $\mathfrak{m}\mathfrak{v}$ every hour.

14th day, A.M.—Pulse, 112 ; temp. 100°·2. Child weaned at mother's desire. Left breast still hard and engorged, but less painful. Tinct. belladonna to be also applied to right mamma, and the breast-pump to be applied to it. Bowels to be kept freely open ; and pot. iodid. gr. x. to be taken thrice daily. Evening pulse, 144 ; temp., 103°.

15th day, A.M.—Pulse, 96 ; temp., 99°. P.M.—Pulse, 104 ; temp., 100°·6.

16th day, A.M.—Pulse, 120 ; temp., 98°·8. Left mamma softer, and not painful. Free discharge of pus from left nipple. Evening temp., 101°·8 ; pulse, 116.

17th day, A.M.—Pulse, 108 ; temp., 98°·4. Evening temp., 100°·4 ; pulse, 100. Still some hardness on left side of left breast. Discharge from nipple cured. Hot fomentation, tinct. belladonna and pot. iodid. continued. Subsequent progress satisfactory.

Dismissed 30th January, 1880, 23rd day post partum.

Os uteri transversely fissured on right side.

CASE IV.—*Normal Labour ; Pelvic Cellulitis.*

Mrs. R., aged twenty-seven ; multipara ; one previous miscarriage. Last menstruation began on 26th April, 1879 ; quickened in August. Admitted and delivered 14th January, 1880. Presentation vertex. Position, left occipital. Right parietal bone overlaps left.

Circumference of foetal head, $13\frac{1}{4}$ inches ; bi-parietal diameter, $3\frac{1}{2}$ inches ; occipito-mental diameter, 5 inches ; occipito-frontal diameter, $4\frac{3}{4}$ inches ; sub-occipito-bregmatic, 3 inches. Slight fissure in perineum.

Progress.—During the third night patient had shiverings. On the fourth morning the pulse was 120, temp., 140° F. No pelvic tenderness. Milk scanty. Tympanites. Lochial discharge plentiful, and not foetid. Micturition free. Ordered castor-oil, which had the effect of freely moving the bowels.

On the fourth night pulse was 162 ; temp., $103^{\circ}\cdot6$. Ordered tinct. aconit. (B.P.) $\mathfrak{mij}$ every hour.

On the fifth morning patient had passed a sleepless night. No pelvic tenderness. Suffers from a cough. Nothing abnormal to be found in the lungs. Lochial discharge still normal. Milk remains very scanty in quantity. Suffers from headache and thirst. Micturition normal. Temp., 104° . Tinct. aconit. $\mathfrak{mv}$ to be given every half hour. Tympanites still present. Whole anterior surface of abdomen to be painted with tinct. iodi, thrice daily. Tinct. ferri perchlor. $\mathfrak{mx}$ in a wineglassful of water to be given as a drink. Patient to be moved into special at 1.45 P.M. Temp. was $105^{\circ}\cdot2$. Aconite to be given every twenty minutes in five-minim doses. Vaginal carbolized injections to be given thrice instead of twice daily. Temp. at 3 P.M. was $104^{\circ}\cdot2$; at 4 P.M. 105° ; at 7 P.M., $104^{\circ}\cdot8$; at 8.30 P.M., $104^{\circ}\cdot6$; and at 10 P.M., $103^{\circ}\cdot8$. At 11 P.M. 10 grains of sulphate of quinine were given, and the dose repeated at 1.15 A.M. The temp. now steadily fell, until at 9 o'clock A.M. on the sixth day it was 99° , and the pulse 96. Patient felt much better. The bowels have been freely opened. No abdominal tenderness, but still some tympanites. As patient suffered from cinchonism, 5 minims of tinct. aconit. (B.P.) were given every forty-five minutes in the place of the quinine, but the temperature gradually rose to 101° , and ten-grain doses of sulphate of quinine were resumed. As patient in the course of a few hours suffered so much from the effects of the quinine,

aconite was again given, but failed to keep the temperature down:

7th day.—There is an evening rise of temperature and diarrhœa. Patient complains of pain in left hip-joint, and left knee-joint. There is no deposit in the left lateral fornix.

10th day.—Patient very weak. Ordered strong beef-tea thrice daily. Still an evening rise of temperature, and a little diarrhœa. No abdominal spots.

11th day.—As the diarrhœa still continues, patient is to take lime-water, and have the milk she drinks boiled, and the white of egg mixed with it.

12th day.—Diarrhœa better. Still complains of pain in the left leg.

15th day.—Diarrhœa and vomiting set in after taking soup for dinner.

16th day.—Diarrhœa still continues very troublesome. Fundus uteri 3 inches above pelvic brim, and lying to the front. Fissure in perineum healed. Os uteri transversely fissured on left side. Patient to continue taking the quinine.

CASE V.—*Favus in a Multipara.*

Jane Hughes, æt. thirty, multipara, admitted and delivered 15th January, 1880. Child male; third; healthy. Last catamenia on 6th of May, 1879; quickening about middle of August, 1879. When the patient was admitted, the scalp was found to be covered with a very extensive crust of tinea favosa, for which she had had her hair cut short, but for which she had had no medical treatment. Hour of delivery, 5.52 P.M. Labour natural. Duration of first stage not known; second, one and a half hours; third, six minutes. Presentation and position, vertex, R.O.P. Diameter of fœtal head:—Circumference, $13\frac{1}{2}$ inches; occipito-mental, 5 inches; occipito-frontal, $4\frac{3}{4}$ inches; bi-parietal, $3\frac{3}{4}$ inches; sub-occipito-bregmatic, $3\frac{1}{2}$ inches; bi-temporal, $3\frac{1}{4}$ inches. Caput succedaneum not well marked. The cord was twisted round child's neck twice. No overlapping of the bones.

Progress.—The patient kept well for two days. Pulse after delivery 76.

		Pulse.				Temp.	
		M.	E.		M.	E.	
Jan. 15,	I.	—	80	...	—		97°
Jan. 16,	II.	76	80	...	99°		98°·4
Jan. 17,	III.	120	104	...	100°		99°·8

Patient has had shiverings. Pelvic tenderness. Scarcely any milk in the breasts. Ordered tinct. aconiti (B.P.) $\text{m}\nu$ every hour. Iodine to be painted over abdomen, and castor-oil to be taken internally. Patient's head (since admission) affected with tinea favosa. Carbolic oil (1-20) to be applied over the whole head, which is divested of hair.

18th January, fourth day p.p.—Pulse, 108-120 ; temp., 99° - $101^{\circ}2$. Aconite to be continued. Still some pelvic tenderness. Complains of being sick. She vomited at night ; vomited matter liquid and greenish in colour, with a slight quantity of undigested food.

19th January, fifth day.—Pulse, 84-84 ; temp. $98^{\circ}4$ - 100° . Ten grs. of sulphate of quinine given thrice during the night.

20th January, sixth day.—Pulse, 76-96 ; temp. $98^{\circ}4$ - 98° . Feels better. A mixture of quinine, diluted sulphuric acid, and tinct. of steel, given as a tonic. Complains of cough.

21st January, seventh day.—Pulse, 84-76 ; temp., $98^{\circ}4$ - $98^{\circ}2$. Cough mixture ordered.

22nd January, eighth day.—Pulse, 84-76 ; temp., 98° - $98^{\circ}4$.

23rd January, ninth day.—Pulse, 60-68 ; temp., 97° - $98^{\circ}4$. Cough better.

24th January, tenth day.—Pulse, 78-84 ; temp., $98^{\circ}4$ - 99° .

25th January, eleventh day.—Pulse, 84-68 ; temp., $98^{\circ}4$ - 100° . Patient was dismissed on 26th of January, 1880. Child well. The favus in her head had much improved, the carbolic oil treatment having been continued till time of dismissal.

Per Vaginam Examination.—Os uteri patulous, irregular, and lacerated. Uterus to the front.

CASE VI.—*Normal Parturition—Cephalhæmatoma Neonati.*

Jane Condie, aged twenty-five. Admitted and delivered 21st of November, 1879 ; primipara. Period of quickening not known ; last catamenia in the beginning of March, 1879. Presentation vertex ; position R.O.P. Sex of child was male. Second stage lasted two hours. The head of fœtus rested upon the perineum for an hour, producing a slight caput succedaneum over left parietal eminence. The left parietal bone overlapped the right. There was a cephalhæmatoma over left parietal eminence.

Circumference of fœtal head, 12 inches ; bi-parietal diameter, $3\frac{1}{4}$ inches ; occipito-mental, $4\frac{7}{8}$ inches ; occipito-frontal, $4\frac{1}{16}$ inches ; sub-occipito-bregmatic, $3\frac{3}{8}$ inches.

Progress.—Good. Swelling, which was the size of half a mandarin orange, on left side of foetal head gradually developed a hard ring at its circumference. It was left to the natural changes, and had become considerably lessened ere the patient left the hospital.

On the tenth day post partum maternal temperature rose to 105° . Tinct. aconit. (B.P.) mj every hour, was given. On the eleventh morning the temperature was 100° , and at night 99° .

Discharged 10th of December, 1879.

Fundus uteri was on a level with the pelvic brim. Os uteri was fissured transversely on both sides. The uterus lay to the front.

The PRESIDENT felt indebted to Dr. Simpson for his admirable Report and interesting cases.

Dr. UNDERHILL congratulated Dr. Simpson on breaking the unfortunate spell which the New Maternity had laboured under previously. The mortality in Dr. Keiller and Dr. Croom's quarters must have made Dr. Simpson anxious on commencing his duties. He hoped the future records would be equally free from trouble.

Dr. CROOM congratulated Dr. Simpson on his Report.

Dr. GORDON thought the history of the New Maternity and Royal Infirmary was not encouraging. Apparently the sites were not healthy, as in the latter there had been a good deal of erysipelas.

Dr. JAMES RITCHIE mentioned that there had been an epidemic of erysipelas in the town, and it was unfair to charge the New Infirmary with it.

The PRESIDENT hoped there would only be a temporary blight on the New Maternity and Infirmary. The present arrangements as to space, light, and sanitary condition were so delightful now, that few could wish themselves back to their old wards. As a whole, the conditions were certainly much better.

Dr. SIMPSON wished he could share Dr. Macdonald's feelings. He had misgivings whether it was best to have their Maternity patients in large wards. In these there was development of germs, &c. ; and, besides, one noisy baby disturbed the whole.

Gynaecic Summary.

Gastrotomy for the Removal of a Fibro-cyst of the Uterus. Dr. Maury of Memphis, Tennessee, narrates a case. When the patient first applied for treatment, ergot was used hypodermically, after the method of Hildebrandt, for two months, without benefit. Then the patient became pregnant, and during gestation the tumour grew so fast that it was thought well to induce abortion. The growth continued to increase, and led to ascites, œdema of legs, bladder, and rectal troubles, &c., and therefore it was decided to remove it. The tumour was found extensively adherent, and was very fragile and easily torn: in separating some of the adhesions, free hæmorrhage from the tumour occurred. The abdominal incision had to be extended from the pubes to the ensiform cartilage. The tumour was attached to the uterus by a pedicle two inches long and an inch and a half in diameter. The pedicle was trans-fixed and tied in two halves. The patient died from peritonitis, on the ninth day. The tumour belonged to the variety known as "fibrous body à gélodes." The author remarks, that tumours which have a distinct pedicle are mobile, and their mobility sometimes becomes a cause of peritonitis leading to adhesions. On the other hand, the fibroid which is thoroughly incorporated with the uterine body may as a rule be expected to be free from extensive adhesions.

The author calls attention to the importance of classifying the different kinds of tumours. He believes that there is a class of cases of intra-uterine fibroids for which there is at present no safe method of treatment, unless it be by gastrotomy.—(*New York Medical Journal*, April, 1880.)

Communications received from Dr. Stephenson, Aberdeen ; Dr. Abraham Francis, Delaware, Ontario, Canada ; and Mr. Lawson Tait, Birmingham.

All communications, books for review, letters, &c., for the Editor, may be addressed to the care of the Publishers, 11, New Burlington Street, London, W.

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THE
OBSTETRICAL JOURNAL
OF
GREAT BRITAIN AND IRELAND.

No. XCI.—SEPTEMBER 15, 1880.

Original Communications.

ON THE MOVEMENTS OF THE FŒTAL HEAD IN
ITS PASSAGE THROUGH A CONTRACTED BRIM.

By WM. STEPHENSON, M.D.

Regius Professor of Midwifery, University of Aberdeen.

THE study of the movements of the foetal head in its passage through a contracted pelvic brim is a subject of much interest scientifically. Its practical importance is also great, for upon the accuracy of our knowledge of these movements must depend the solution of the numerous questions regarding the management of such cases. It is not the object of this Paper to describe fully, or enter into any critical examination of the views at present held by various writers, but to add to our knowledge by drawing attention to a movement which has not hitherto been recognized.

Confining our attention to the simple flat pelvis, in which the antero-posterior diameters are alone contracted—the generally entertained view of the mechanism whereby the head passes the brim in such cases, may be briefly described, in the words of Professor Spiegelberg, as “composed of two rotations of the head, the one on the occipito-frontal axis (the sagittal suture leaves the posterior border of the brim), the other upon the transverse axis (the occiput comes down).”^{*} There is, however, as I shall show, a third rotation, one on a vertical axis, whereby the sagittal suture, from lying transversely in the pelvis, becomes more or less

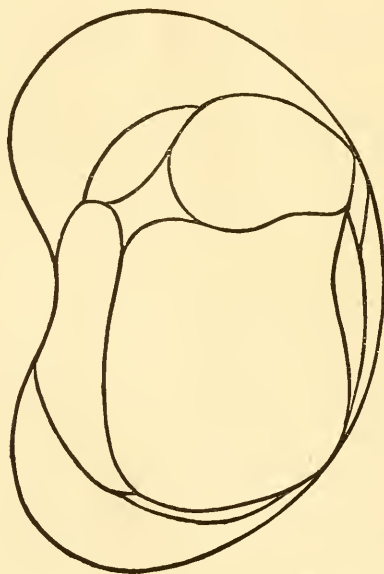
^{*} *Brit. Med. Journ.*, Oct. 18, 1873.

oblique, the occiput rotates forward, or, under other conditions, backwards.

To establish this point I shall take the description given by the author already quoted from, and in this way avoid the confusion which might arise from frequent reference to the opinions of different writers. He says :—

“In the simply flat pelvis the head enters with the anterior half of the vertex. The chin has become removed a little from the chest; the anterior fontanelle lies a little nearer to the examining finger than the posterior; the coronal suture runs near

Fig. 1.



and parallel to the conjugate diameter; the bitemporal diameter of the head lies in the conjugate itself; the biparietal to that side of the conjugate to which the back of the head is directed. The sagittal suture runs in a transverse direction, and very near to the posterior wall, an exaggeration of Naegele's obliquity; the anterior fontanelle is found in the neighbourhood of the promontory on the side to which the forehead is directed."

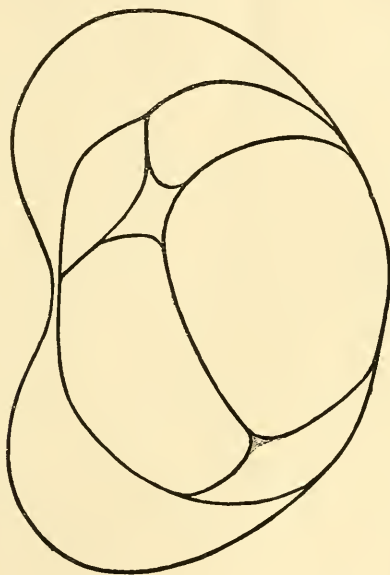
This position is shown in Figure 1, which represents the head as seen from below as it engages the inlet. The figures are not diagrammatic representations of theories, but the records of

actual experiments. They have been drawn carefully to a scale, one-quarter size, from an artificial pelvic brim cut in wood, and a foetal head. Placed in the given position, gentle pressure was made on the base of the skull, perpendicular to the plane of the inlet, and around the foramen magnum. The movement was observed, and a drawing again made, when the head had cleared the brim—Figure 2.

“In this position the head passes the brim in the following manner” :—

1. “The posterior parietal bone, which is situated above the

Fig. 2.



promontory, is flattened and depressed against the latter by the powers of labour, and is thereby forced more and more down, and the sagittal suture comes nearer the true transverse diameter—that is, to the anterior margin of the brim.”

2. “The whole head descends, but not in the axis of the brim; the bitemporal diameter does not descend in the conjugate, and the biparietal on the side of it, but the head is pushed in an oblique direction towards that side where the forehead lies, so that the biparietal diameter, while it only approaches the antero-posterior diameter, reaches a parallel plane below the brim. That the

movement downwards is truly so described is shown by the course of the depression caused by the promontory on the posterior parietal bone, running as it does from the parietal protuberance towards the inferior anterior angle. During this movement the head becomes a little more flexed, the anterior fontanelle rises higher up, the occiput comes down, and now can easily be felt."

There is an inaccuracy in this description arising from want of recognition of the third rotation. It consists in saying "that the biparietal diameter, while it only approaches the antero-posterior diameter, reaches a *parallel* plane below the brim." It cannot be so if the other parts of the description are correct. The mark of the promontory runs obliquely forward from the parietal protuberance towards the inferior anterior angle. To give it this direction the head must either glide transversely to the side of the pelvis on which the occiput lies, the reverse of what it is stated above to make ; or it must rotate on a vertical axis, so that the biparietal diameter, from lying parallel to the conjugate as it enters, is inclined at an angle to the median line when it has passed the brim. And this is what takes place, and makes each part consistent with the other. Although not recognized, this third rotation is really described in the text, when it is said, "the head is pushed in an *oblique direction* towards that side where the forehead lies." The "oblique direction" cannot be obliquely downwards in the transverse diameter, for then the forehead would descend, whereas it is said the "anterior fontanelle rises higher up." This movement can only be explained by a rotation on a vertical axis, and this alone can reconcile a *forward* direction of the mark left by the promontory, whilst the head seems pushed in the same direction. Further proof is afforded by direct experiment. Fig. 2 gives the head in the position in which it lay when it had cleared the strait. The occiput has come down, but it has also rotated slightly forwards ; the sagittal suture has come nearer the true transverse diameter, but from being transverse, now lies obliquely in the pelvis ; a rotation on a vertical axis has occurred ; the mechanism therefore is composed not of two but of three movements of rotation.

In the above case given by Spiegelberg, the head is described as becoming flexed during its passage through the brim, the occiput coming down and the forehead rising higher in the pelvis. This does not, however, always occur ; the conditions which at first caused "the chin to be a little removed from the chest" may

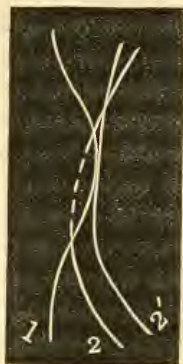
continue to act, forcing the forehead first through the brim, the occiput following afterwards without the forehead again rising. Several writers lay much stress upon this as the special mechanism of the simple flat pelvis. Under these conditions the third rotation is well marked, and occurs earlier than in the first case. The mark of the promontory is different : it runs directly parallel with the coronal suture, and whether it begins at the tuberosity of the parietal bone, or more or less in front of it, is dependent upon the amount of room in that side of the pelvis in which the hind part of the head lies.

My attention was first directed to the occurrence of a rotation on a vertical axis by a case I was closely watching. Whilst the head lay at the brim I felt the posterior fontanelle to the right and anterior, the sagittal suture running obliquely to the left. I regret now that I did not at the time notice whether the posterior parietal presented more than the anterior ; but, thinking of it since, from the readiness with which the sagittal suture was felt, I am inclined to believe it was so. It was not noted, however, at the time, but the second position of the head was clearly made out. When, after several good pains, the head had cleared the brim, I was not a little surprised to find that it lay on the floor of the pelvis in the third position ; the occiput was posterior and the sagittal suture lay in the right oblique. From experiments since made I have been able to confirm this observation, and to reproduce the mechanism. It occurs readily in a generally slightly contracted pelvis when the head is placed at the brim with the posterior parietal bone lower than the anterior. From other experiments I find the same rotation, although in a slighter degree, takes place in the simple flat pelvis, when the head is placed in the same oblique position.

This—the posterior parietal presentation—is the reverse of the Naegele's obliquity, the parietal bone lying posteriorly is on a lower level than the anterior, and the sagittal suture is nearer the anterior than the posterior wall. The movements are also reversed ; the head rolls on the promontory instead of the anterior wall ; the sagittal suture approaches to, instead of going away from the posterior wall ; the anterior parietal bone is pressed in and moulded, instead of the posterior ; and the rotation of the occiput is backwards instead of forwards. Flexion, or extension and subsequently flexion, is the same in both.

The advantage gained by rotation on a vertical axis can be readily seen by experiment. In Figure 3, 1 represents the curve

Fig. 3.



of a transverse section of the promontory; the portion of the head which comes in contact with it presents a curve (2) which cuts that of the promontory and is therefore arrested. It cannot glide off by a forward movement for the anterior wall hinders it; it does not roll round it by a backward movement (the sagittal suture moving backwards), for the reverse of this is taking place; it may pass by the parietal bone being indented so that its outline corresponds with the curve of the promontory, and this does occur to a certain extent; but by rotation on a vertical axis, the occiput turning forward, the curve of the head, instead of cutting the promontory curve, comes to lie as a tangent to it (2') and so passes. We thus see that, in proportion as this third rotation takes place, the indenting of the foetal bones is averted. And, moreover, the widest (bi-parietal) diameter of the head is also turned from the narrow antero-posterior diameter into a more roomy oblique position. Were the rotation in the opposite direction, the wide diameter with the parietal tuberosity would be thrown more on to the promontory, and the obstruction increased.

In the posterior parietal presentation, the tuberosity of the parietal bone overlaps in the same way the anterior wall. It is this portion of the foetal head which offers the greatest resistance, and yields less to the moulding process. But when rotation backwards is effected, either by the natural powers or by artificial aid, the widest and least yielding diameter is thrown to one side and glides obliquely off the opposing brim.

Experiments with the foetal head and pelvic brim clearly demonstrate the advantage of this third rotation. One other point of practical importance is also to be observed. The rotation is more easily effected when the propelling force acts not directly perpendicularly, but inclined a little to one side, and directed in the direction in which the movement is to take place. This explains to a certain extent, the advantage, in cases of flat pelvis, of laying the patient on one side or the other, as pointed out by Prof. Martin, of Berlin, so as to give the uterine axis a lateral

inclination, and direct the uterine action more towards the opposite part of the head. Flexion or extension, as the case may be, is thereby favoured, and simultaneously the third rotation is also more readily performed.

A special condition, with which we started, is essential for the occurrence of the rotation on a vertical axis—viz., that the long diameter of the head lie transversely in the pelvis. This position, according to many writers, is the normal, or at least most frequent in the flat pelvis. It is not, however, invariably the case; the head may lie in the oblique diameter, the occiput anterior, and here the rotation may be considered to have already occurred. The effect of the rotation is to throw the biparietal diameter from being parallel to the conjugate diameter to lie oblique in the pelvis, and the tuberosity to pass on one side of the promontory; but should the head present originally in an oblique diameter it has already this position and the rotation is unnecessary.

The practical application of the recognition of the rotation on a vertical axis is very evident. In using the forceps we can readily impart this movement to the head. Its benefit, however, is to be gained only by giving it the proper direction: In the anterior parietal presentation the occiput must be made to rotate forward to turn the occipital protuberance away from the promontory. In the posterior parietal presentation the occiput must be turned backwards to bring the tuberosity off the anterior wall. Since my attention has been directed to the subject, I have been able, on several occasions, to observe the rotation taking place when making direct traction; and, in two instances, I feel confident that delivery was greatly facilitated by imparting the necessary rotation by means of the forceps.

CLINICAL EXPERIENCES OF PUERPERAL FEVER.

By A. D. LEITH NAPIER, M.D.

Fellow of the Obstetrical Society; Member of the Edinburgh Medico-Chirurgical Society, &c. &c.

(Continued from page 465.)

(3) IT is not dependent on erysipelas. So great is the diversity of opinion held by those who have considered this point, that pages might be filled with quotations supporting or denying the identity of the diseases. Some, including Virchow, regard puerperal fever as

"internal erysipelas," others aver that the diseases are not identical but interchangeable—*i.e.*, have a common zymotic or contagious poison for their production ; others, that a "close alliance" as regards nature and cause of prevalence exists ; this is further modified by another theory that, besides the infection of a zymotic poison, some other factor is requisite ; and this is found in decomposed clots, or membranes which may have been retained, or decomposed lochia, and the absorption of such by some uterine abrasion, or at the placental site ;* others fail to find any relation whatever between their varying prevalence. I believe there may be a resemblance as regards various phases of their existence, but cannot find evidence sufficient to convince me of a more intimate relationship. When the fever appeared in October, 1874, there was not a case of erysipelas in the district, nor had there been for some time before ; a few cases were observed towards the end of the first series of cases ; in only one instance could the slightest connection be established ; here a person living under the same roof, but in a distinct apartment and separated from the puerperal patient, had erysipelas between three weeks and a month before. During the second outbreak erysipelas was never seen. In no case of fever did erysipelas appear externally, nor did any attendant on a fever case suffer from erysipelas. Examples contradictory to this have been frequently adduced, but in no way do these prove identity or interchangeability, as, were this so, it might be held proven that, because (as has been noted) typhus fever has been present in an attendant under the same conditions, therefore, puerperal and typhus are identical, interchangeable, or mutually communicable. The probability is, that modified erysipelas and typhus exist in the puerperal form, and ordinary forms of these diseases attack the non-puerperal female. My experience has furnished me with more than one example of erysipelas in the in-lying state, which by no stretch of the imagination could be likened to puerperal fever.

(4) It is not ordinary septicæmia or pyæmia. To give a strictly precise definition of the exact differential diagnosis is as easy as to explain exactly the term "epidemic." That there are differences we will endeavour to show, but when it is remembered that the prevalent symptoms are more or less alike, that there are in several cases complications of traumatic and idiopathic origin,

* *Lancet*, p. 400, September 21, 1878.

and that the terminal symptoms are almost alike in *all puerperal deaths*, too fine distinction cannot as yet be demanded. The ante-partum existence of puerperal fever (Cases II. and XXX.; two cases of Campbell's, &c. &c.) in which there was no putrefaction of the fœtus or membranes, is surely unlike ordinary septic poisoning. The position taken up by those who urge the purely septic nature of puerperal fever is, so far as I understand it, that surgical and puerperal septicæmia are identical, allowance being made for the more pronounced symptoms of the former. Fordyce Barker* points out that there is no record of a long series of septicæmic cases having occurred in the practice of a rural surgeon, that septicæmia is a very rare disease in surgical country practice, and adds the presumption, which most will readily endorse, that obstetricians, as a class, are at least as scrupulous as to cleanliness, and disinfection of instruments, as surgeons. The septic poisoning which sometimes follows rheumatism, scarlatina, or gonorrhœa with so deadly a result is wholly dissimilar in its infective or propagating power. Surgical septicæmia is never so rapid in its action as to destroy a patient without leaving a trace post mortem, which we may meet with in puerperal fever. The surgical variety has almost invariably external manifestations from pyæmic complications, &c.: not so the other. The ordinary variety is frequently accompanied by acute delirium and all loss of consciousness, which is very rare in the other. As in surgical cases, so in obstetric, septicæmia may arise with no other case in a district, but this is not what we would call puerperal fever. Some excellent authorities, including Dr. Robert Barnes, have classed this as autogenous puerperal fever, and Dr. Barnes† states that these forms do not seem to have active powers of propagation. With this our observation is in entire accordance, and this variety is the puerperal septicæmia, which, in the great majority of cases, will be met with both in town and country. Puerperal fever may be present without septic symptoms, it may be manifested by peritonitis, phlegmasia dolens, or a low typhoid-like fever. And from my reading and conversations with friends who have had much experience in treating these diseases, I am unaware that, except in degree of severity, it is possible to separate them more widely. In the two puerperal septicæmias, specific or fever, and traumatic or otherwise accidental (confined to the individual or a few

* *Op. cit.* p. 464, *et seq.*

† "Trans. Obstet. Soc. Lond.," 1870.

individuals), I do not see why the liberty of division should be withheld. True specific yellow fever and malarious yellow fever are *alone* distinguished by their epidemicity and contagiousity. I would fain refer to some of these elaborate statistics which are at the present time regarded as so perfect in their deductions—*e.g.*, the Vienna, Westminster, &c. &c., which endeavour to reconcile (or in other words “jumble up”) all things indefinite under a term almost as much so, but will content myself with asking, Have these data done more than firmly establish a fact long ago unquestioned—viz., that ordinary septic poison is transmissible, and that in different soils it grows different crops? Practically, doubtless, these cases were in their symptomatology alike, but, if the septic poisons were identical, how is it that in certain hands cases could be so easily accounted for, so simply traced, and yet, in the experience of others equally honest, honourable, and desirous of truth, found to be so different in initiation, seeming causation, progressive history, and termination? How could one set of observers so easily stamp out an evil, and others with equal knowledge of appliances be so helpless?

Pyæmia, or purulent infection of the blood, a disease which the necessary traumatism of delivery is apt to give rise to, is certainly distinct from puerperal fever: its clinical history of often-repeated chills and changes of temperature, hepatic, nephritic, or pulmonary complications, the former causing the common icterode appearance, the dull, leaden-brown complexion, and the local developments of the disease, as manifested by cellulitis, abscesses, &c., clearly stamp it as a markedly peculiar affection. Pyæmia is not infrequently met with apart from parturition, and is not, so far as I know, a very common complication of childbed fever.

Again, classing together septicæmia and pyæmia, it is obvious, from what is known of their pathology, that the larger the surface exposed to the poison, and the more debilitated the patient, the more apt to arise and the more virulent when present will be the disease. Is this so in puerperal fever? Have we not the very worst forms of the disease sometimes following the most easy natural labours? Is it not known that many severe instrumental cases escape scot free in the midst of an epidemic? Despite exhaustion, laceration, great loss of blood, such cases may escape, while the easy birth of a premature foetus may be followed by this terrible disease. We believe epidemic puerperal fever to be distinct from those cases which are nominated sporadic, and

would rather class such as truly septic, or pyæmic, in causation. When epidemic fever prevails, factors which at other times would be innocuous—*e.g.*, retained placenta—may readily cause grave and serious disease. As to the peculiar selection of victims, reference will be made hereafter, but this dissimilarity is here noteworthy.

(5) It is contagious. Schroeder* avers that it is not contagious, but "it must be admitted that it is manually transferable." He denies that there is anything specific in the secretions of patients in puerperal fever. "These have only all the character of decomposing organic compounds." This idea is by no means due to Semmelweis, as is often supposed, as, so long ago as Hulme's time, the theory obtained that "puerperal fever was not an infectious disease any more than an inflammation of any other part of the body." Inflammation, then, comprised our more modern septicæmia, pyæmia, cellulitis, angeioleucitis, &c. On the other hand, the most exaggerated beliefs have been held, and, I may venture to add, still exist, regarding the danger of contagion. It is unnecessary to retrace the often-covered ground, which shows that one particular practitioner or nurse has carried infection from patient to patient. This has been unquestionably proved, but the explanations have been less abundant than the facts recorded. It seems to be incredible of belief that a mysterious halo of pestilential virulence will, despite the most strenuous disinfective ablutions, pervade the very vital tissues for months; yet we are asked to believe that this is so. Were this true of puerperal fever, typhus, variola, cholera, ay, plague itself, would shrink into insignificance before this most deadly scourge. One extraordinary instance of prolonged powers of infection is related by Meigs, in which the disease tracked the practice of a gentleman who used every means to disinfect himself, even shaving his head all over, but without avail. An explanation is offered by Professor Playfair,† who states that, during the period which was so disastrous in this individual's practice, he suffered from an ozaena, which persisted during *all the time* he infected patients, and *ceased* at the time he lost the virus. As to the precise value of this discovery I do not presume to determine; but it seems to me a somewhat glaring illustration of an explanation related to the class *post hoc propter hoc*. Other facts, more remarkable, have been noted; women in attendance on fever patients contracted the disease.

* Eng. Translat. pp. 331, 332.

† "Science and Practice of Midwifery," vol. ii. p. 314.

A similar train of symptoms followed, and post-mortem examination revealed similar lesions.

MM. Danyau and Depaul* hold that true puerperal fever is highly contagious, not only transmissible from one patient to another, but also communicated by attendants; the latter thinks further that, under certain conditions, the fever may infect non-pregnant women. He cites cases in support of this. In 1839 a severe epidemic of puerperal fever raged at the maternity hospital under his management. One evening one of the female pupils, Mdlle. D——, while engaged in washing the genitals of a fever patient, experienced a most sudden and painful sensation, which she referred to emanations which she had respired on raising the bed cover. She felt very ill. The same evening she was affected with rigors, the belly became painful, pulse small and frequent; vomiting of green matters, and diarrhœa set in. She died on the third day. On post-mortem examination all the appearances of puerperal peritonitis were well marked. This young woman was not in any condition similar to that of a parturient woman, she being a virgin, and not at a menstrual epoch. He also adds that there was a tradition of similar cases having occurred within the hospital. M. Tarnier has recorded analogous cases. Two *sage femmes* of the Maternité, who were acting during the epidemic of 1856, were attacked with all the symptoms of puerperal fever. One died, the other recovered; both were at the menstrual period.

Of the thirty-one cases I record, excluding two as ante-partum, and those already discussed, we have no less than thirteen remaining, about 42 per cent., which certainly seems a large number, which may be debited as due to contagion. At the same time I have to state that somewhat unscientifically I have placed all cases of doubtful like origin under this category. Under protest I place Case I. here. I have little doubt that I carried infection to III., as the previous day I had been in close connection with a case of fever. V. must have been infected by Mrs. W——, the midwife, or me. Regarding VI. I am doubtful. VII. and VIII. were attended by the midwife who had charge of VI., and the probability of the infection is therefore patent. Within a fortnight of attendance on V. the same midwife had charge of IX. X. and XI. may have been infected. XII.,

* "Observations on Puerperal Fever," Dr. Byrne. Dublin, 1869.

XVIII., and XXVII. are liable to suspicion. In none of these, excepting III., had my mind been thoroughly satisfied, but XXXI. furnished me with a good example. Mrs. H——, a midwife, on the 18th of September, 1875, administered an enema to case XXX., then dangerously ill of fever. Ignorant of the danger of contagion, she neglected all disinfection. She had no case till the 28th of September, when, as recorded, she delivered Mrs. S——, who was attacked with puerperal fever two days after. Therefore, my experience is in accordance with the theory that the fever is contagious, and, in face of all the facts in the literature bearing on the question, it seems impossible to conclude otherwise. Still, that this is not the cause, but one of the causes, seems to me equally clear.

(6) A variety of complications attend the fever. To prove that a disease exists because it presents itself to us in different ways may seem absurd ; yet that this is not so, will be apparent if we remember that a special set of symptoms in a general disease is frequently concomitant with, or predominant over, the pathognomonic symptoms, which may be thus completely masked. Most authors who have written on the subject have based their views on the result of their personal experience. After a series of unfortunate cases, the judgment becomes unsettled, certain symptoms are anxiously watched for, and thus in some cases, as has been well said, "the disease is actually created by the treatment intended to avert it." Thus it is that, while volumes have been written, many discrepancies and contradictions exist, so that most modern textbooks are devoid of a full and complete exposition on this point. It is not within the scope of this Essay to attempt any classification of so wide a range of observation, so that, contenting myself with the remark that in the majority of epidemics one symptom or set of symptoms has been distinctly predominant, and that to a certain extent the foregoing suggestion may be explanatory of this, I will proceed.

The different varieties of symptoms which are most often present are inflammatory affections of the peritoneum, uterus, ovaries, cellular tissue, lymphatics, veins ; of the heart, lungs, liver, spleen, and bowels. Further, the type of inflammation may be sthenic or asthenic. Again, no pronounced symptom may be present, and yet the constitutional signs are so severe that grave structural changes seem taking place. From a passing hysteritis, or uterine colic, to acute ramollissement of the uterus, almost every variety

of inflammatory action may be present. Puerperal fever has, however, one symptom which has been so frequently noted that the symptom has frequently displaced the parent disease. Peritonitis is as invariable a lesion of childbed fever as cerebral or chest complication in typhus, or pneumonia or perforation of the bowels in gastro-enteric, if not more so. When we consider that in every puerperal woman, no matter from what illness she suffers, there is almost invariably an appearance of distension and tenderness of the abdomen, we have to be guarded that too much stress is not laid on the peritonitic complication; yet I believe my former assertion will still bear scrutiny. This is not the proper place to enter into a consideration of the reasons for the existence of so many dissimilar lesions; yet so closely connected are the points that a word or two may not be here misplaced. We see the more acute inflammations, as peritonitis and metritis in young, healthy, full-blooded, well-nourished women; the ovarian, the phlegmasic, and the low typhoid complications in those of poor constitution and with deficient sanitary appliances and advantages. The cases which fall to septicæmia, pneumonia, or shock, are those of the most rapid and fatal description, and, as will hereafter be entered on, depend, at least to some extent, on the perverted condition of the nervous system.

Of the various complications all observers agree that peritonitis is the most common. Under "symptoms" this will be referred to again, so that, suffice it to mention that, of thirty-one, fourteen suffered more or less from peritonitis. Adding cases in which any abdominal lesion was discovered or suspected on fair evidence we have twenty-three. This demands notice; if in comparison we select gastro-enteric fever we will probably find in a similar ratio the number of cases in which the abdomen is visibly affected. Why the abdomen should be specially the centre of attack in puerperal fever is not difficult to understand, as with the great debility after parturition, in consequence of the distension of its parietes and the pressure of the contained organs during gestation, together with the violent action of its parts at the time of delivery, and the probability of existent traumatic lesion, it is most apt to be affected by any deleterious quality of the circulation by vessels or lymphatics.

Murphy's* view is that several diseases are distinguished by their

* "Midwifery," by E. Murphy, M.D.

specific complications—*e.g.*, typhus, typhoid, scarlatina—and the inference follows that the abdominal lesion in puerperal fever is accounted for by some similar law ; I am inclined to hold that this view is less satisfactory than the one previously advanced.

However, this is certain, that many are readily inclined to allow the importance of complications which may be so predominant as to mask the initial disease in various specific and clearly defined fevers, and on the other hand are intensely sceptical of the necessity for weighing the value of the many complications which may arise in puerperal fever.

(7) Like other blood poisons, it is most virulent in hospitals or crowded localities. My personal experience is insufficient to rely on regarding this assertion, so that I must refer briefly to the records:—"In two months thirty-two patients had the fever ; only one of them recovered."* Again: "The greatest mortality was in the years 1835-38, in the last of which twenty in twenty-six died. The malady commenced in January, in which month Dr Rigby saved only one out of nine" (Fergusson's Cases, General Lying-in Hospital).† The epidemic that appeared in Paris, especially in the Hôtel Dieu, in 1746, was "so often fatal, that scarcely one woman recovered."‡ In the Westminster Hospital, in 1770, nineteen had the disease ; thirteen died.§ "In 1773, fever showed itself in the lying-in ward of the Edinburgh Royal Infirmary ; it began about the middle of February, and almost every woman, as soon as she was delivered, or perhaps twenty-four hours after, was seized. All of them died, though every method was used to cure the disorder" (Professor Young)|| In 1774, in the Hôtel Dieu, in general seven of twelve had the disease ; all died.¶ In the Maternity the mortality was one in thirteen (Murphy).** The mortality in the Vienna Hospital was as high as one in ten, and even one in six.†† The effects of "hospitalism" have to be considered : the crowding, exposure to septic infection, or nosocomial malaria, as Dr. Kennedy of Dublin well names it, are doubtless of the utmost importance. That hospital patients are exposed to the same initial causes of the disease is in many cases extremely probable. In the report of the Vienna outbreak, the simultaneous connection of the students with the dissecting-rooms and the obstetric wards, seemed undoubtedly to originate

* Dr. Wm. Hunter, MS. Lectures.

† Rigby's "System of Midwifery."

‡ Murphy, p. 646.

§ Mackintosh, *op. cit.*

|| Murphy, *op. cit.*

¶ Jos. Clark, "Med. Com.," vol. xv. p. 303.

** *Op. cit.*

†† *Ibid.*

the evil ; and in this instance, as also in others which might be cited, the question arises, if the disease present was aught else than a septicæmia, distinct from a zymotic disease ? On the other hand, that this is exceptional, and has perhaps been too much dwelt on of late as a good illustration, is highly probable, when we recollect that in 1774, when the fever appeared in the Dublin Lying-in Hospital, of 280 women delivered in March, April, and May, only thirteen persons, or one in 21·12, died therefrom.* In 1787 it again appeared in the same Institution, when, of 128 women delivered in one month, only eleven had the disease ; of these seven died. In the fourth epidemic, 1788, during November and the two succeeding months, 355 women were delivered, of whom seventeen were attacked, and only three recovered. “We learn from Dr. Jos. Clark, that the mortality in the Westminster Hospital was one in four cases. . . . The cause has since been discovered, and by proper means to secure drainage and ventilation, the fever has almost disappeared.”† Thus it is difficult to well discriminate what is due to the hospitalism proper, what to the contagion ; but, be this as it may, the facts remain, that, like all zymotics, puerperal fever is more successfully treated out of hospital, and is propagated more rapidly and rages more vehemently in than out, which is what I wish to direct attention to.

(8) It is a distinct disease from its complications—*e.g.*, peritonitis, metritis, &c. Not many years have elapsed since an attempt to discriminate between puerperal fever and peritonitis would have been viewed with an amused, if not amazed, contempt. The treatment by heroic bleedings, as practised by the foremost obstetricians, required for its scientific basis a theory of acute inflammation ; and it was not till some time after the warm controversies between Mackintosh and Prof. Hamilton of Edinburgh, that Fergusson and Copland realized in puerperal fever “a blood poison, not a peritoneal inflammation.” John Burns in his excellent work certainly attempted to prove a difference, but his effort did not meet with the favourable recognition it deserved. It is not necessary to dwell in detail on the distinctive differences between puerperal fever and uterine phlebitis, phlegmasia dolens, pelvic cellulitis, as all these may occur after delivery without the fever. However, I wish briefly

* Jos. Clark, *op. cit.*

† Murphy, *loc. cit.*

to notice metritis and peritonitis, which next to septicæmia, already referred to, are the most frequently mistaken for puerperal fever.

The differential diagnosis of metritis and puerperal fever has not been so fully treated by many authorities as is desirable. It has never been disputed that severe instrumentation or manual interference may cause inflammation of the womb; this inflammation may, when puerperal fever is rife, merge into the more deadly disease; but unless fever is prevalent there is seldom difficulty in establishing distinctions. Simple metritis, then, is never, or hardly ever, met with after an easy labour; it is usually a few days after delivery before its symptoms are established; it is progressive, and shows no remissions; the local affection is easily discovered, the uterus being enlarged and tender to touch; difficulty in micturition is an early and often persistent symptom; the pulse is slower and fuller than in fever, the temperature rarely so high, and, if so, not persistently high; the discharge is usually lessened, and may be altogether arrested. When a case ends badly, uterine phlebitis (very rare in fever) is a common termination; when septicæmic symptoms appear, they are late and less intense than in puerperal fever. Early symptoms, metritis-like, are sometimes due to shock. Intensified symptoms are caused by the retention of clots, and relief is almost immediately experienced on their expulsion. Triaré, who has closely studied the subject of child-bed fever, is of opinion that milk fever is due to slight metric inflammation.

Puerperal peritonitis may occur from a chill or from an extension of metric inflammation. The site of pain is different in peritonitis, and the peritoneal inflammation accompanying puerperal fever: in the former the hypogastrium is first affected, in the latter the epigastrium. As in metritis, the stages of peritonitis are more definite and gradual; it never is retrogressive—though I have seen a second attack closely follow the first, yet this is generally distinct; the bowels are usually constipated, and the constitutional signs are otherwise unlike those of fever. Finally, puerperal peritonitis is always amenable to treatment, if seen early enough; not so puerperal fever. The phlegmasiæ may be dismissed in a line; these occur after a rise of temperature, are not primary causes of pyrexia, but secondary, oftentimes late in origin.

9. It is infectious to the foetus. An author of some repute has advanced the exact converse to this assertion.* I do not wish to

* Wm. Campbell, *op. cit.*

weary my readers with needless reiterations, so that I will not give the cases fully. At least half of the children suffered from acute peritonitis or an exhausting diarrhœa, and six of twenty-five died ; two others were prematurely born or dead ; so that of twenty-five children, eight did not survive. I unfortunately omitted at the time to get particulars regarding Mr. Grieve's cases. In the most rapidly fatal maternal illnesses the infants were attacked early, and died, evidently from acute peritonitis. In less serious cases the infants suffered from very severe intractable diarrhœa, even although the mothers had not suckled them.

No child died whose mother recovered. In some cases, where the peritonitic affection appeared late, the children were unaffected. In the cases of ante-partum fever (II. and XXX.) the children were very speedily attacked with peritonitis ; both died. In small-pox, scarlatina, &c., we frequently see a blood poison affecting the fœtus *in utero*, as likewise in constitutional diseases, as syphilis and phthisis ; but that acute inflammatory maternal affections, such as pneumonia or acute Bright's disease, will exert a defined and special influence on the fœtus, is unproved and unasserted. I own that acute septicæmia is hardly analogous to an inflammation *simpliciter*, but if the sepsine is conveyed to the maternal system immediately prior to or even after the birth, if the child has not been suckled, if from the mother's condition it has been deemed unwise to encumber her with the infant's presence, so that they have not been in contact after the parturition, it is difficult to conceive how the child has been infected, unless *in utero*. This is no fanciful creation ; my own experience has demonstrated such cases ; and though I would not base a theory entirely on such evidence, I think it worth recording. That trismus and erysipelas occur in the infants of mothers who have had child-bed fever, is recorded by various authors—mostly, I believe, in hospital epidemics. Personally, I have not observed such ; yet the fact lends additional strength to the argument.

10. Many diseases co-exist in man and the lower animals. Modifications doubtless are seen in many, but the familiar glanders, hydrophobia, &c., will occur to all. It has been affirmed, with good grounds for the statement, that, when epidemic, variola is likewise epizootic. When the same culture is bestowed on veterinary as on human medicine, this subject will be further elucidated. In the treatise, before-mentioned, by Dr. Wm. Campbell, some interesting matter bearing on this is to be found. He writes : "Many bitches, soon after bringing forth their

young, refused to suckle them, and died a day or two after parturition. In Fifeshire especially, but also in other parts of the country, the mortality among cows after calving was remarkably great about the same time that puerperal fever was prevalent." I cannot recall where, but somewhere I have read of the same observation regarding cats, and that post mortem the signs of puerperal peritonitis were distinct. In the north-east of Aberdeenshire more cows died after calving in 1874 than was usual in any other ten years, and many a fine brood mare was lost in foaling; in fact, so common was the unfortunate termination, that farmers and "vets" alike regarded the "inflammation of the womb" as being due to epizootic causes. It has to be remarked that the following year deaths of cows and mares in parturition were very, very rare, though the condition of seasons, pasture, and other incidental surroundings, seemed exactly alike. If this is but a remarkable coincidence, it is very remarkable that two observers of one disease, with half a century intervening, should independently arrive at the same conclusion from their own personal knowledge. Does it not seem more than a coincidence?

II. One of the most important theories held by those who advocate the non-existence of a specific child-bed fever is, that there is no distinct morbid anatomy attending deaths in this disease, but that any or none of many appearances may obtain. It might have been wiser to avoid this question, as I am not possessed of a practical knowledge regarding the morbid appearances after death from puerperal fever. Yet, constrained as I am with a simple wish for more light, and fair elbow-room for my subject, I must risk exposing weak points, and trust that if I cannot, abler hands will strengthen and repair my deficient outworks. I may be permitted to state that, in reading and arranging the observations concerning the post-mortem appearances, certain allowances and deductions require to be made; the former to those who, pregnant with one great inclusive idea concerning one or more organs, have overlooked, or left unrecorded, what they considered minor matters, but matters mayhap fraught with considerable importance; the latter from those who, wishing to establish one universal basis of pathology, have magnified trivial and unimportant details. need not cite examples; every well-read practitioner may recall such. I have devoted some time and attention to this subject, so that I venture to state the result of my study briefly. Most authorities are agreed that in what has been called "malignant

puerperal fever " one or other of six conditions may be met with, and it is further held by some that these are dependent on the intensity of the preceding disease.

(α) No change of significance in any organ, the blood alone being altered to a colour darker than normal. Dr. Stevens in his work* says: "There is not one inflammatory spot to be seen after death, nothing to induce us to believe that anything but functional disease has existed in the solids, yet these are the very cases of all others which are most fatal." "To believers in the identity of peritonitis and puerperal fever we can show puerperal fever with a perfectly healthy peritoneum. To those who insist on inflammation of the uterine veins as constituting puerperal fever, we can show the genuine condition without this disease."† "There is a great variety of structural lesions found, the most frequent of which are those of the peritoneum, those of the veins of the uterus, those of the inner surface of the uterus, and those of the lymphatics. But these lesions are not uniform or constant."‡ "The most malignant form of the disease, that in which a fatal result occurs the most speedily, offers the fewest and least striking structural lesions. . . . There is a primary disease, an original cause of vital depression, which sometimes destroys life so rapidly that there is no time for the development of the secondary morbid alterations. Cases are not very infrequent in which patients have manifested the first symptoms and died within thirty-six or forty-eight hours; in these instances the anatomical lesions are so few or slight that many have been reported by such observers as Gooch, Simpson, Locock, Tessier, Bouchut, Voillemier, Tonnellé, &c., as puerperal fever *without lesion*.§

(ε) Softening of the muscular substance of the uterus, heart, kidneys, or spleen.

(γ) The existence of pus in the uterine veins and absorbents (Dr. Robert Lee).

(δ) Effusion of serum into the pelvic cellular tissue.

(ε) Effusion of peculiar coagulable lymph over the serous tissues, with glueing or matting together of the intestines.

(ζ) Gaseous distension of the intestines.

In addition to these, we may have evidence of the development of local affections, such as peritonitis, oöphoritis, metritis,

* "The Blood," p. 179.

† Ferguson, "Essays on the more important Diseases of Women," p. 81.

‡ Fordyce Barker, *op cit.*, p. 458.

§ *Ibid.*

pneumonia, pleurisy, phlegmasia dolens, or, again, thrombi of blood-vessels or of the thoracic duct.

Now, assuming that what we have above is substantially correct, is there any reasonable plea for the oft-reiterated assertion that puerperal fever has no definite pathology. I may remark that the third condition—*i.e.*, infiltration of the uterine vessels and absorbents with pus—might more correctly be regarded as a purely secondary disease—*viz.*, uterine phlebitis—which has supervened on the fever, as this condition is comparatively rare, and, according to many, by no means pathognomonic.

Gaseous distension is a common, I might say invariable, accompaniment of all grave diseases affecting pregnant or parturient females. With regard to the serum which is so frequently found within the pelvic tissues, it is most likely that blood stasis, a consequence of the vastly increased and accelerated febrile circulation, through a distended and thickly planted vascular area, is the condition which gives rise to its effusion.

Serum is certainly not a necessary consequence of active local inflammation, as I have myself witnessed at least one example negatory to this. In a very suddenly produced cerebral apoplexy I observed, post mortem, considerable effusion of limpid watery serum between the membranes and the upper aspect of the cerebrum, as also in the brain substance itself, and this without the slightest inflammatory evidence. The serum of puerperal fever is not always clear, but frequently (when found with the loose, soft dirty shreds of lymph) foetid, dark, and turbid. This is observed with the cases which develop purulent deposits externally.

Taking, therefore, a comprehensive consideration of the facts pertaining to the morbid anatomy, we find that, while certain organs are from their situation, &c., more apt to be affected than others, the whole system is liable to suffer from the existence of puerperal fever; a statement which applies with equal force to any acute general disease, it is true, but which not the less is important to remember.

(To be continued.)

ERRATA in No. XC., August 15, 1880.

- Page 457, line 21, for "found" read "find."
 " 458, " 11, for "fits reappearing" read "of its reappearing."
 " 459, " 25, for "though mortality" read "the mortality."
 " 459, " 26, insert semicolon after previously.
 " 463, " 27, insert semicolon after "fever," and read "with the exception of three or four, he either delivered."
 " 463, " 38, for "Horne" read "Home."

RESULTS OF ONE THOUSAND CONSECUTIVE CASES OF MIDWIFERY.

By WILLIAM LEGGE, Surgeon, Derby.

TWO most important questions in the domain of midwifery were a short time since brought somewhat prominently before the profession: the one arising out of a discussion at the Obstetrical Society on the use of the forceps; the other forming the subject of a correspondence respecting puerperal mortality. A statement of personal experience on these points may not, therefore, be inopportune, for although so limited a number as one thousand cases of childbirth will not warrant dogmatic inference, the history of their results may serve to corroborate or otherwise the deductions of other observers; and not unfrequently the simple record of every day occurrences in the daily routine of practice proves of more real value than the history of isolated cases, or the details of departures from the ordinary phases of disease.

Briefly put, then, the results of one thousand consecutive cases of midwifery in my private practice give 1,009 births—515 males and 494 females; 951 labours terminated naturally, and 49 artificially.

The presentations were—

959 Vertex	13 Breech
3 Face	20 Foot
5 Arm	

The complications were—

12 Placenta prævia	3 Phlebitis
4 Prolapse of funis	3 Metria
6 Convulsions	2 Choleraic diarrhœa
13 Post-partum hæmorrhage	

The operations involved—

31 Forceps	3 Craniotomy [labour
12 Version	2 Induction of premature

The mortality was—

7 Mothers	75 Infants
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Such are the bare figures, respecting which a few details may be interesting.

Among the abnormal presentations: of the 3 *face*, 2 were delivered by forceps and lived, the other by version and was still-

born ; of the 5 *arm*, version was performed for all, 4 being still-born ; of the 13 *breech*, 3 were dead ; of the 20 *footlings*, 10 were still-born. All the mothers recovered.

Among the complications : in 12 of *placenta prævia*, 7 were still-born, version was performed for 5, only saving one ; but none of the mothers were lost, which, as in these cases the maternal lethality is estimated at one in 3, satisfies me that the prompt introduction of the hand by or through the placenta and the performance of version is the wisest procedure in this emergency, often the most anxious with which we have to contend. Of the 6 cases of convulsions, one was delivered with forceps, both mother and child living, in one premature labour was induced in consequence of the extreme severity of an epileptic attack, and one died twenty-four hours after the delivery of a still-born child—in this case the mother was of weak intellect, and had been an epileptic from her childhood ; in 3 out of the 4 cases of prolapsed funis the children were dead ; of the 3 cases of phlebitis one died ; of the 13 who had post-partum hæmorrhage only one died, a fact satisfactory to chronicle, as the average mortality is one in 3 ; of the 2 cases of choleraic diarrhæa, one died the third week after the delivery ; and of the 3 cases of metria, one died on the third day.

Coming to the operations : of the 49, none were fatal to the mothers, and in 31 instances of the application of forceps only one child was still-born. The question of the proper use of forceps has lately been so ably argued before the Obstetrical Society of London, that all I need say is, my own experience fully bears out all that has been said in favour of their early employment, always assuming that the os is dilatable, if not actually dilated. While I have never yet had cause to regret using them, I have frequently regretted not doing so earlier, and, as I look back to former years, I feel that many hours were wasted through too implicit obedience to the midwifery maxims which, some twenty-five years since, ruled our action : the fact, indeed, speaks for itself, that in my first 500 cases I used the forceps but in 7, while in the second 500 I employed them in 24 ; again, as the average maternal mortality after forceps is stated to be one in 15, and I have not had a single death, and the infant mortality one in 5, while I have had but one in 31, I feel certainly encouraged to advocate their earlier and more frequent employment in tedious labour.

My experience of the next operation, version, is not satisfactory. Ordinarily it is attended by a high rate of mortality to the infants

(1 in 3), and ought not therefore, despite the prospect of speedy delivery it affords, to be resorted to inconsiderately. Of my 12 cases, 8 were still-born, although perhaps the nature of the cases may partly account for so a high a mortality, 5 being for placenta prævia with 4 dead children, the 2 in which they lived, being one a case of face presentation, and the other where inertia and exhaustion in a case of twins induced me to turn and deliver.

Of the operations of craniotomy : 2 were for impaction of disproportionately large head, and one for deformed pelvis, this being a case for which in a previous pregnancy I had induced premature labour at the seventh month (using GaiFFE's induction battery), when the child was born alive ; the mother did not inform me of her next pregnancy until a fortnight before the full term.

The maternal mortality I have to record is 7 in 1,000 ; the details of which are :—One seen only at the time of labour, who died three weeks after under the care of the parish surgeon ; one from phlebitis following severe hæmorrhage after partial presentation of placenta : in this case morbid fears had been indulged from *neighbourly* tales that no one was ever known to survive a confinement happening in her fortieth year ; one was the result of exhaustion from choleraic diarrhœa a fortnight after delivery ; one an epileptic primipara of weak intellect who died in convulsions which continued without any intermission from the commencement of labour until death, in thirty-eight hours ; one was from exhaustion consequent upon hæmorrhage after premature confinement ; one from jaundice with incessant vomiting ; and one from metria.

Very great difference of opinion exists as to the figure which should express the normal rate of puerperal mortality, nor does it seem possible to determine this definitely, until the actual ratio of maternal lethality is first ascertained by the comparison of very large numbers, and then next, the preventable deaths (especially those due to the ignorance of unskilled midwives) are eliminated, when perhaps a more precise standard might be set up. No one will pretend that the maternal deaths in lying-in hospitals can be taken to represent the normal rate, since allowance must be made for the elimination of such lethal elements as single women, primiparæ, and above all the delicate women of the upper and middle classes who so largely swell the list of puerperal victims. There can be little doubt that could a careful record of the united expe-

rience of large numbers of general practitioners be secured, this would afford the most reasonable basis upon which to frame a true standard of the normal death-rate.

So great an authority as Dr. McClintock, in a Paper read at Bath, came to the conclusion that the sufficiently melancholy average he had laid down ten years previously of 1 in 125 was too favourable ; far from glowing as that picture was, he felt constrained to paint a fresh one in still more sombre colours, and to declare 1 in 100 to represent more correctly the lethality. Now as this is just double what the Registrar-General gives as the rate of the last thirty years, it is more than startling to feel that we have been hugging a vain delusion ; that for every victim reckoned, one more has in reality succumbed ; that for every household desolated, one more has been ravaged ; and that the already melancholy dirge arising from devastated hearths, sweeps along in a dismal diapason of augmented anguish. But surely registration has not been so deplorably defective or so mischievously misleading as such a discrepancy implies, even making all due allowance for the assumed unwillingness to certify child-bed as a cause of death, and for puerperal deaths ascribed to other agencies. For myself, I venture to take some exception to the figures cited by Dr. McClintock ; for instance, he includes the deaths reported by Simpson and Matthews Duncan, which occurred, it must be remembered, in consulting practice, where the mortality would be above the average ; death, too, in British Kaffraria can scarcely be fairly reckoned. Suppose, then, we subtract these and in their places insert, as results of general practice, those reported in the Journal by Mr. J. Kisch of 5,500 cases with 22 deaths, and my own modest contribution of 1,000 with 7 deaths, we shall have,

Mr. Kisch . . .	5,500 cases with 22 deaths
Dr. N. West . .	3,100 " " 23 "
Dr. G. Jones . .	2,000 " " 16 "
Dr. Campbell . .	1,500 " " 13 "
Dr. Greene . . .	1,500 " " 12 "
Dr. McClintock	1,000 " " 12 "
Mr. Legge . . .	1,000 " " 7 "

Total 15,600 " " 105 deaths.

This list would give the mortality as rather less than 7 in 1,000, which nearly coincides with my own experience ; and remem-

bering that Dr. McClintock's 12 in 1,000 occurred in consulting practice, would probably not differ very materially from his results had ordinary private cases alone been recorded. This figure, too, is sufficiently high to indicate that although the Registrar-General's return may understate the mortality, it is not so wide of the mark as suggested by Dr. McClintock. Granting, then, 7 in 1,000 to be a fair inference as to the actual present mortality in general practice, there remains the question, does this exceed what ought to prevail?

I fear we can scarcely expect the normal lethality to be as low as that quoted by Mr. Goodman, Chairman of the Birmingham Lying-in Charity, of less than 3 in 1,000, yet surely there must be a mean between this and the 10 in 1,000. Perhaps after all it may be found in the 5 in 1,000 of the Registrar-General, which if as yet less than the actual mortality, fairly indicates the figure it ought not to exceed. I would venture to suggest that those who have accumulated experience in this most important matter should place it on record, we might then be in a fair way to a common agreement.

Notices and Reviews of Books.

The Therapeutics of Gynecology and Obstetrics. Comprising the Medical, Dietetic, and Hygienic Treatment of Diseases of Women, as set forth by distinguished contemporary Specialists. Edited by William B. Atkinson, A.M., M.D., Lecturer on Diseases of Children at the Jefferson Medical College, Physician to the Department of Obstetrics and Diseases of Women, Howard Hospital, &c. &c. London: Baillière, Tindall and Cox. 1880. Pp. 365.

THIS work is frankly, undisguisedly, a compilation. The diseases peculiar to women in the non-pregnant, pregnant, and puerperal states, are taken in order, and under each head is given a number of quotations from books and journals bearing on its treatment. Some of the quotations are inserted verbatim, others seem to have been abridged by the editor. To some of the chapters is prefixed a short account of the causes, signs, and symptoms of the morbid condition, the treatment of which is discussed in it, such résumé being intended as a guide to the recognition of the

disease. These diagnostic paragraphs and the abstracts of therapeutic papers are the only part of the book that can be called original.

The value of a work of this kind as a guide in practice depends upon the judgment with which the quotations have been selected; and as a book of reference, upon the accuracy with which they have been made. In neither of these respects can we accord high praise to the work before us. We are quite at a loss to discover the principle which has guided the compiler in his choice of authors to be quoted. We find many names, both English and American, of whom it is no disparagement to say, that their reputation cannot be called wide; and, on the other hand, we find, in certain sections, the name of the author most closely identified with the subject conspicuous only by its absence. For instance, in the section in which post-partum hæmorrhage is included, although the treatment of this accident by perchloride of iron is fully put before the reader, yet not a line from Dr. Robert Barnes is quoted: the inquirer can only ascertain the opinions of this eminent man upon a remedy which he has practically introduced to the profession, through a passing and imperfect reference made to his work by Dr. Atthill, who is quoted at length.

Nor, we regret to say, are we satisfied as to the accuracy of the quotations made. For instance, at p. 48, Dr. Matthews Duncan's account of the treatment of the spasmodic form of dysmenorrhœa by dilatation with graduated bougies is given in such a way as to make it seem as if he recommended this treatment for dysmenorrhœa in general. It is introduced with the words—"this teacher strongly advocates the treatment of dysmenorrhœa by mechanical means." We may point out, also, that a wrong impression is given by the word "mechanical" here. It is only correct if taken as strictly synonymous with instrumental. It is well known that Dr. Duncan does not regard the dysmenorrhœa in these cases as mechanical in production, or the bougies as acting simply mechanically (*i.e.*, by enlarging the canal) in effecting a cure. At page 54, too, Dr. John Williams is quoted with regard to membranous dysmenorrhœa, as saying, that "the only means whereby a cure is likely to be effected is electricity." This is verbally correct, but it is substantially inaccurate, for the compiler omits to add Dr. Williams's next sentence, which is, that he has never seen the slightest benefit from electricity. At page 216, Dr. Copeman, of Norwich, is stated to have claimed "invariable success" for his

method of treating the vomiting of pregnancy by dilatation of the cervix uteri with the finger. Dr. Copeman, who was much above that exaggeration of the effect of remedies which is so characteristic of limited experience, only said that it had succeeded in certain cases in which he had tried it. We may also mention as errors which, although of very small importance, yet show that the editor's work has not been done with very great care ; that Dr. A. W. Edis, of the Middlesex Hospital, is more than once quoted as Dr. "Thomas Edis," and that Drs. McClintock and Macan, of Dublin, are referred to as being of London.

The introductory diagnostic paragraphs, although, we presume, written by the editor, yet cannot be called original in the sense of containing new observations or critical examination of old ones ; they are simply repetitions of what is to be found in most textbooks, facts and errors being alike adopted. This part also is carelessly written or revised, for instance, at page 33 we read, "If the monthly menses be present, emmenagogues may be prescribed, but they should never be administered when indications of uterine or ovarian action are present." And at page 89, we are given, as a symptom of endocervicitis, "menses too scanty or vice versâ, too frequent or vice versâ : " sentences the meaning of which is at least obscure.

It would have been very much better if the author had exercised some kind of critical judgment of what he quotes, and before quoting had examined all that relates to the matter quoted. At page 133 he transfers the description of a new instrument, a sponge tent with a steel spring inside it, but he does not mention that a case has been published in which death resulted from the use of this implement.

The amount of space given to different topics is not always proportional to their importance, and they are classified in a manner to which objection might be taken ; for instance, under the head of puerperal hæmorrhage, loss of blood from the pregnant uterus from any cause whatever is discussed ; placenta prævia, accidental hæmorrhage, and post-partum hæmorrhage being thus mixed up in the same chapter. But, in a work like the present, that is a small matter provided that the inquirer can find what he wants.

This last desideratum we are bound to say is complied with, for the work is well indexed. The chief praise we can give it is, that it shows much industry. It may be of some use to those who

cannot get at a moderately well-stocked library, and for original workers it may now and then facilitate reference. We regret that we cannot say more in its favour.

Martin's Atlas of Obstetrics and Gynæcology. Second Edition. Translated and edited, with Additions, by Fancourt Barnes, M.D., M.R.C.P., Physician to the British Lying-in Hospital, Assistant Physician to the Royal Maternity Charity of London, &c. Pl. XCVIII. London: H. K. Lewis. 1880.

THIS work is one which does not call for the extended notice due to a new book; for the Atlas in its original form is known to all obstetric and gynæcological workers. It consists of ninety-eight lithographic plates, most of which contain a number of drawings illustrating the anatomy of the female pelvis and its contents, labour and its abnormalities, diseases of the female generative organs, including the breast, and of the fœtus. They do not—indeed it could hardly be expected that they should—illustrate every part of the subject, for there is much that cannot be shown in this way. The drawings are taken from many different sources, comparatively few being original; Cruveilhier, Froriep, Madame Boivin, William Hunter, Leopold, Spiegelberg, Winckel, and many others, being made to contribute to it. It would be easy of course to criticize at great length the selection that the author has made, for it is impossible to include a reproduction of every illustration bearing on its subject matter that has been published; and we imagine that each person who should set himself to make a selection of plates for a work of this kind would choose differently. It is to be remembered also that the choice of the compiler is restricted by considerations, financial and other of which the critic cannot be aware. The chief objection which we have to make is the too restricted sense in which the author uses the word “diagrammatic.” He appears to apply it only to such drawings as have been made purposely inaccurate or incomplete as to detail, simply to put general facts in a pictorial form. There can be no doubt that the term is perfectly applicable to those drawings which the author has thus described. But there are many drawings which are not so distinguished, and yet cannot have been made from Nature. They are drawings from Nature only in the sense that they represent what the author believed, from his examination, must have been

the actual state of the parts. They are not taken either from life or from a specimen, but made from imagination (a scientifically used imagination, it may be), and are therefore diagrams. These remarks especially apply to the plates illustrating uterine displacements. There is a great difference between the diagrams, showing these conditions, of Froriep and others, and the photographs from Nature of Winckel. We ought to add, that the author has been very careful to state the source whence he has borrowed ; and this gives the Atlas a value as a work of reference as well as of illustration.

Dr. Fancourt Barnes, who is evidently determined that the distinguished name he bears shall be associated with obstetric science in the future as well as in the past, has, beside translating the letterpress, added three additional plates of woodcuts taken from the work of Dr. Robert Barnes, and a plate also of the obstetric instruments which, in his opinion, are "most commonly used in this country." However excellent these instruments may be, yet we doubt whether each of those the author has selected is yet so widely known as to justify the application of this phrase to it.

The translation is well done, except that in a few places it is somewhat too literal—*e.g.*, "the foregoing head" is used as an equivalent for the head foremost (Plate XC.) ; and at Plate XI. the arteries commonly known as the "curling" arteries of the uterus are spoken of as the "twisted" arteries. There are also a few clerical errors, as at Plate XXXI., where we are referred for a paper of Huguier's to the Memoirs of the Academy of *Music*.

The execution of the plates, as specimens of lithographic art, is very perfect, and the printing of the letterpress leaves nothing to be desired. The work is well bound, and altogether forms a very handsome volume.

Abstracts of Societies' Proceedings.

OBSTETRICAL SOCIETY OF EDINBURGH.

Meeting, Wednesday, February 25, 1880.

Dr. ANGUS MACDONALD, *President, in the Chair.*

Professor SIMPSON showed his basilyst for breaking up the foetal head. So satisfied was he with it, that he ventured to demonstrate its use on a dead foetus before a class of one hundred and seventy students. The pelvis he employed was a rickety one, with a conjugate of less than $2\frac{1}{2}$ inches, so that there was some difficulty in extracting the shoulders. He first perforated a parietal bone, and then, passing the basilyst on, screwed it into the sphenoid bone, and then into the petrous portion, the head being steadied meantime by a pair of Lyon's forceps. In this way the vault and base were thoroughly comminuted, and the extraction performed by the cranioclast.

Report of a Case of Metro-perimetritis ending in Abscess of the Uterus.

By ANGUS MACDONALD, M.D.

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T. S., aged thirty-eight, unmarried, a native of Shetland, was admitted to Ward XVI. of the Royal Infirmary, 12th of October, 1878. The patient had been usually healthy until two years previous to admission, when she caught cold during one of her monthly periods, which caused suppression of urine. Twelve days afterwards she noticed a swelling in the abdomen, which, however, gave her no serious trouble till about three months before admission. Since that period she has suffered from much pain and recurrent attacks of abdominal distension. She was sent to hospital as a case of supposed ovarian tumour, with a note from the doctor stating that four months ago he had attended her through an attack of peritonitis, which, however, was cured in the course of three or four days. On palpation, the abdomen over its

lower half was felt to be occupied by an irregularly-shaped, very firm tumour, one portion of which, situated in the right iliac region, appeared to be separated from the great mass of the tumour, which was placed centrally and towards the left. The upper outline of the mass on the whole extended obliquely upwards from right to left, so that the tumour reached higher on the left than on the right side. On the left side it extended as high as the edge of the false ribs, but on the right only about an inch above the level of the anterior spine of the right ilium. It was freely movable, and but slightly tender to the touch. Percussion elicited dulness over every part of the tumour, and on auscultation a loud souffle was heard all over it, while with each arterial impulse the whole mass was both seen and felt to pulsate. No foetal heart-sound could be heard. On being asked whether it were not possible that she might be pregnant, the patient stoutly denied the fact with imprecations. Subsequently, however, she allowed that this might be the case, and stated that she last altered four months ago, her previous menstruation having been regular, and that she thought she felt foetal movements two weeks before admission. The areolæ were well developed, and there was some milk in the breasts.

On examination per vaginam the os was felt to be soft and swollen ; from its posterior part a small mucous polypus projected, and a small amount of sanguineous discharge came from its cavity. The mucous membrane of the vagina had a markedly congested wine-leys colour. The uterus was found enlarged, occupying the whole of the inlet of the pelvis, and pushed to the left by what seemed to be a subserous fibroid on the right side.

On 15th October—*i.e.*, three days after admission—the patient aborted. When examined on the same day the uterine tumour was found considerably diminished in its central and left portions, but the shrinking was in no respect similar to what one would have expected after miscarriage in a normal uterus. The tumour was particularly hard, especially on the right side, while in its middle and left portions the consistence was similar to that of the normal uterus. The tumour on the right, though still separated by a slight depression from the upper and left part, was now clearly ascertained to be continuous with the uterus. This right part was also noticed to be particularly tender to touch. On vaginal examination, the uterus was felt to be much enlarged towards the left, and to occupy fully the pelvic inlet. Pain was

complained of when any part of the uterus was pressed upon her vagina. The foetus was male, measured nine inches in length, and showed signs of having been dead for some days. The eyes were closed, but the anus perforate. The placenta was healthy. The patient herself felt well, there being no elevation of temperature or quickening of pulse, and the discharge moderate in amount.

On 16th October, the day following the abortion, the patient complained of abdominal pain, which at first appeared of the nature of after-pain. From that time, however, the temperature rose, and continued as high as 102° to 103° for several days, while the abdominal pain persisted.

On 31st October the patient had a rigor, and the temperature rose to 104.8° , but the tenderness in great measure ceased. Ten-grain doses of quinine, administered from time to time, had a good effect in controlling the fever; meanwhile the patient appeared on the whole to make some improvement.

On examination on 15th November, a month after the abortion, the uterus was felt as an irregular, somewhat lobulated, mass, extending to within an inch of the umbilicus. In bulk it resembled a child's head, and was hard and unyielding. The sound passed four and a half inches towards the left, and no parametric or perimetritic exudation could be detected *within* the pelvis.

It is stated in the case-book of 11th December, that for the last fortnight the patient has suffered from a good deal of abdominal pain and tenderness, and the evening temperatures have been on several occasions as high as 103° , while the morning temperatures have been normal. Poultices have meanwhile been constantly applied. Towards the right side of the tumour considerable increase of swelling is felt, and there appears also to be obscure fluctuation in this part. Some days later the aspirator was used, and a considerable quantity of pus removed. This, on examination by Dr. Hamilton, was found to have no specially distinctive character. There was no foetor present, and no bacteria were seen in it.

On 6th January, 1879, the abscess, which had been pointing for some days, burst spontaneously a little below the umbilicus, in the mesial line, and discharged a large quantity of foetid pus. A uterine sound, introduced through the abdominal opening, was found to pass first downwards and outwards towards the right for a distance of two and a half inches, where it met with a slight

obstruction ; on being then directed forwards and downwards, it passed other two inches, when its point appeared to be in the position of the cavity of the uterus. The abscess cavity was emptied as far as possible by pressure, and a large sponge soaked in carbolic solution secured by gauze bandage over the abdominal opening. At next dressing much foetid discharge saturated the sponge, and the cavity of the abscess was proved to communicate with the uterine cavity, since a sound introduced through the cervix, by being gently guided upwards and towards the right, was made to show its point at the umbilical opening. After careful examination, to make sure that no part of the gut was endangered, a probe was passed through the external opening, and made to elevate by its point the cutaneous surface at the lower part of the abscess, about three or four inches below and to the right side of the principal opening. The point of the probe was then cut down upon, and a drainage-tube passed in at the original opening and out at this new opening, so as to secure free drainage of the cavity. The cavity was freely washed out daily for a considerable time, and a sponge and oakum dressing kept over the surface with a gauze bandage.

2nd February, 1879.—The sound was passed into the uterus, when it was found that the organ had greatly contracted since last examination, and that the opening in its wall no longer existed. The cervix could hardly be reached by the finger per vaginam, as the whole uterus had been dragged forcibly upwards and towards the right. The patient continued to improve, was free from pain, and left for the Convalescent House 27th of March, with the uterus less than twice its normal bulk, but fixed in the abdomen by the adhesion arising out of the abscess. Three weeks later she returned to Shetland in good health.

The above case is reported as possessing special interest in several respects. It was a case of extreme gravity, since for a long time the patient's life appeared to hang in the balance, but it ultimately ended in complete recovery. Abscess of the uterus is a very rare lesion, and for this reason, if for no other, the case appears worth recording. But the case is especially interesting in a diagnostic point of view. I confess that for long I was misled regarding its true nature. I further think it would have been difficult for me to have avoided the mistake I made in looking upon it as a fibroid tumour of the uterus. It is interesting to notice that the case was diagnosed at first as an ovarian tumour ; but we

have such a variety of tumours sent to hospital labouring from this now fashionable disease, that we always scrutinize them with considerable doubt.

Whatever symptoms the patient presented when she was ordered south, there were none when she reached Edinburgh, which could have been considered to point in the direction of ovarian disease. But, on the other hand, the distinction between fibroid disease and pregnancy was by no means so easy. The patient was a person who affected extreme modesty, and, being unmarried, met our hints of a suspicion of pregnancy with the most blasphemous imprecations. The curiously lobulated character of the tumour, which was given it by the irregular projection of the huge lump on the right of the uterus, certainly did not correspond with the usual appearance of a pregnant uterus. On the other hand, though accompanied by a curious impulse which enlarged the whole mass and pushed the stethoscope against the ear of the observer, the uterine bruit was extremely loud—much louder than we are wont to find in a case of fibroid tumour of the uterus. In those cases, as a rule, the sound is very soft, even when their size is considerable. Then, again, the absence of the foetal heart was difficult to explain, as we would have expected to have heard it about this period of pregnancy had the child been alive.

The state of the cervix, the state of the breasts, and further, when the patient, repenting of her disgraceful attempt to deceive, confessed that she was probably pregnant, and that she had ceased to menstruate for some months, put the diagnosis of pregnancy as one of the concurrent conditions beyond reasonable doubt. This opinion was rendered absolutely certain by the occurrence of abortion three days after her admission to the hospital. But the abortion only solved part of the mystery. It still remained to decide what the large mass on the right of the uterus was composed of. I concluded that it was a subserous fibroid on the right of the uterus, with a very broad base. But I doubtless was wrong. Still, what else could it well be? Had I sufficiently considered the statement made in the letter which accompanied the patient when she was sent to the hospital, I might have been led to suspect that this mass was of inflammatory origin, as it was distinctly stated in it that the patient had been treated for peritonitis. But I was thrown off my guard by the accompanying statements that the peritonitis had been cured in the course of two or three days, and that the patient now suffered from ovarian disease. In

this way, finding one of the statements doubtful and another clearly wrong, I confess I did not give the third statement that attention it deserved.

Again, the shape, size, and feel of the tumour were, with the sole exception of the tenderness, much more that of a fibroid than of an inflammatory tumour. The uterus was much enlarged. The tumour was of firmer consistence than that of the uterus, and was distinctly separated from it by a furrow which was easily felt. The entire uterus was movable, and had formed no pelvic or abdominal adhesions—one or other or both of which one would have expected in the case of exudative perimetritis to such an extent as to produce so large a tumour.

Accordingly, from the defective anamnesis, conjoined with such facts as we could make out, I concluded that the patient suffered from a pregnancy complicated with a large subserous fibroid affecting the right half of the uterus. That being so, I was not a little astonished to find that shortly after delivery symptoms of metritis set in, and that the tumour, instead of getting smaller, in obedience to the law of involution which usually regulates uterine myomata, as well as the muscular wall of the uterus in general, continued to increase.

The symptoms continued to increase in severity, and latterly the fever and lochial putrescence became positively alarming. Ultimately the mass was found to soften, and fluctuation was made out in its surface. This, on aspiration, gave us evidence of laudable pus which had as yet met with no putrescent element, consequently did not communicate with the interior of the uterus.

The change effected by the aspirator, however, appears to have led to the extension of the abscess cavity downwards as well as upwards, and when the abscess broke, as it did on the morning of the sixth day, a few hours before we had arranged to again aspirate the cavity, it was found that the abscess was abominably stinking, and that it communicated on the one hand with the cavity of the uterus, and on the other with the external surface of the abdomen, through an opening near the umbilicus.

How the case originated is still to my mind not at all plain. It is clear that ultimately we had metro-peritonitis, with the production of a large amount of inflammatory deposit either in the right uterine wall or upon it. But whether the case had commenced as a metritis primarily, and had come to project forwards the right side of the uterus, and had secondarily involved the peritoneum,

I cannot see any evidence sufficient to decide. The only point of importance that indicates a leaning towards the one or other side, is the fact that the patient was believed to have suffered from a temporary attack of peritonitis. That would seem to indicate that the case had at first affected the peritoneal aspect of the uterine surface, and had spread secondarily to the muscular wall. It might be suggested that the tumour, after all, was a fibroid, which suppurated after delivery, and thus broke up and destroyed itself. This, of course, is an unusual history for such tumours, and there seemed nothing in this patient's condition likely to operate upon such a fibroid, nor were there any structures like the débris of such a tumour discharged from the fistula; therefore, without attempting to dogmatize on a subject that is sufficiently obscure not to admit of dogmatic opinion or statement, I must say that it appears to me that the sequel of the case seems to point towards the opinion that the large mass on the right of this woman's uterus was purely of an inflammatory nature.

As to treatment, little is to be said. Till the suppuration appeared, we treated symptoms as they arose. After establishing the fact that we had to deal with a metro-peritoneal abscess, we endeavoured to keep it aseptic. In this, however, we failed. Next we secured free drainage of its cavity, used antiseptic washes, and endeavoured to support strength during the time the utero-abdominal fistula was discharging. Although the patient certainly looked very ill for long, we were gratified in the end to find the case terminate in complete recovery.

Professor SIMPSON asked as to the existence of a bruit, and commented on the rarity of an abscess opening into the uterus. He thought the record interesting.

Dr. UNDERHILL remarked on the mobility of the mass and uterus as a whole. He remembered a case where, before labour, he felt a tumour which was due to the uterus being saccated.

Dr. JAMES CARMICHAEL suggested that it might be a tubal abscess.

Dr. MACDONALD thought the evidence was against its being tubal. He thought it originated in the uterus or peritoneum.

Case of Resuscitation of a New-born Infant.

By ROBERT BRUCE, M.D.

Cases where resuscitation of the still-born infant is called for, are not very uncommon, and in many instances no great difficulty is experienced in effecting that object. At other times, again, this is a much more difficult process, and requires considerable perseverance in the use of the ordinary well-known measures before it can be accomplished. But there are cases met with now and then apparently so hopeless, that we may well put to ourselves the question whether there is any use in attempting to resuscitate, and where the ordinary expedients we are accustomed to employ so successfully would in all probability meet with nothing but failure. Two such instances I related to this Society on a former occasion (see vol. iv. of the *Transactions*), and I now bring forward another case of a somewhat similar nature.

On 27th January last I was called to attend a patient in her confinement. The labour was lingering, though not by any means difficult; the delay took place in the first stage merely from inefficiency of the pains and the long intervals between them. Rupturing the membranes not being attended by any beneficial result, recourse was had to the short forceps, and delivery easily effected. There having been no difficulty in the labour, and no delay in the second stage, I was rather surprised to find that the child made no effort whatever to respire; and after rapidly severing the cord, no signs of life could be discovered, even the fingers pushed upwards under the ribs having failed to detect any pulsation of the cardiac organ. Under these circumstances the question came to be whether there was any use of attempting artificial respiration. I decided to give the child the benefit of the doubt; and considering that it would be losing valuable time to try the usual means first, I at once introduced the curved tube which I now show you, and which was specially made for the purpose, into the larynx of the infant, and carried on artificial respiration by alternately blowing in air and compressing the thoracic walls. Minute after minute passed, with no apparent result except the sound of air passing out of the lungs on depressing the chest walls. Notwithstanding my apparent want of success, I still persevered, and at last (in about ten minutes, as nearly as could be reckoned) was rewarded by discovering that the heart was now perceptibly beating. Though encouraged so far, there was

not yet the slightest appearance of natural respiration commencing. However, it seemed to me that there was rather less of the death-like paleness in the countenance, and after some minutes longer of suspense, a solitary inspiration took place, which was followed after a considerable interval (probably about two minutes) by another, then once again after a similar interval. This state of matters continued for some time, the intervals gradually becoming shorter, until at length, after thirty-five minutes had elapsed, I was enabled to suspend my efforts, natural respiration having become fully established. So far the resuscitation was a complete success, and I felt very much gratified by the result ; but, unfortunately, although to all appearance a fine plump infant, weighing fully ten pounds, there seemed to be something not quite right about it ; it never cried, and would not attempt to suck ; its jaws were stiff, and the mouth could not be opened wide. For a day or two it moaned almost constantly, and one day had several slight convulsive seizures. It never seemed to move its limbs, remaining rather in a passive condition. Swallowing was attended with difficulty, but this improved afterwards, and it even sucked a little on the tenth day ; but this amendment did not continue, and death took place that evening rather suddenly, after passing some blood by the bowels. It may be added that very little urine was passed during the whole period of its existence. Unfortunately, no post-mortem examination could be obtained.

Remarks.—The chief point of interest in this case, and my reason for bringing it under the notice of this Society, is the fact of suspended animation having been restored where no pulsation of the heart could be detected—the cases formerly related by me having come under a different category, for in both the heart could be felt to beat more or less distinctly, and the introduction of a tube into the larynx was called for by the failure of the ordinary measures made use of in the first instance. Cases of resuscitation where no cardiac pulsation can be detected are, I believe, very uncommon, and at one time I used to consider it rather a work of supererogation to make any attempt in that direction. The result achieved here, proves that success is within the bounds of possibility, and ought to encourage us to persevere in the use of similar means, unless we are satisfied from the circumstances of the case that life is certainly extinct.

Dr. CROOM thought Dr. Bruce's case a valuable one. The important point brought out was, that artificial respiration was

successful after the heart had ceased to beat. It was generally taught in textbooks that under such circumstances artificial respiration was useless.

Professor SIMPSON felt indebted to Dr. Bruce for his interesting Paper, as it would encourage them to persevere in even apparently hopeless cases. He had conscientiously tried resuscitation when the heart was not beating, but had never succeeded. In bad cases he had blown air into the lungs, not through Dr. Bruce's elegant tube, but through a catheter. Dr. Wilson, of Glasgow, had contrived a tube with an india-rubber ball attached to it. The difficulty about this apparatus was that the ball got out of order. He thought blocking of the air-tubes often an obstacle to respiration, and therefore believed that Schultze's method gave better results. He remembered one case where forty-five minutes passed before the child breathed spontaneously. It died in two or three days, as the children in such cases generally do. It was doubtful if in very bad cases the ultimate result was good. Perhaps the inflation produced emphysema or atelectasis. Ribemont, in his sections of frozen foetuses, had pointed out the importance of the tube-curve. In one special case he (Dr. S.) performed tracheotomy, but without avail.

Dr. JAMES CARMICHAEL had always used in such cases a gum elastic catheter, and thought it answered the purpose very well. He was first led to use it from seeing the late Sir James Simpson resort to it in a dispensary patient. He considered Dr. Bruce's instrument a good one, but not possessing special advantages over the ordinary gum elastic catheter. He thought the case narrated was interesting from its successful result after cardiac action had ceased.

The PRESIDENT had been pleased with the Paper. He was quite satisfied that it was an erroneous principle to give up attempts at resuscitation because the child's heart was not beating. Last summer he helped a friend in a case of breech impacted at the brim in a pelvis whose conjugate measured only $4\frac{1}{2}$ inches. In using the blunt hook he fractured the thigh. The occiput could not be got to rotate forward, and therefore, giving up the child for lost, and being determined to save the mother from any additional risk, he ceased from hurrying the delivery, and took the opportunity to demonstrate to his young friend the mechanism of how the head came over the perineum in this special mal-rotation. When born, the heart was not beating, and therefore

the child was wrapped in a towel and put under the bed, and the mother told the baby was lost. When the "corpse" was taken up half-an-hour afterwards, cardiac pulsation was found, and the child ultimately lived. This introduced another element into the discussion of the value of artificial attempts at resuscitation, as it was evident the badly asphyxiated child might frequently come round of its own accord. He had frequently inflated the lungs by blowing into them. He had by mistake, on some occasions, inflated the stomach, but not now, as he had by experience learned that it was perfectly easy to pass an elastic catheter into the child's larynx, and so avoid inflating the stomach. The methods of artificial respiration were exceedingly interesting. He was at present making an abstract for the Journal of an excellent Paper by Behm in the *Zeitschrift für Geburtshülfe und Gynäkologie*.

Dr. BRUCE, in reply, said there was no danger of passing the tube into the œsophagus instead of the larynx, as the left forefinger acted as a guide and could feel that the instrument was properly placed, while it could even be employed to close the opening more effectually by gently pressing down the epiglottis. The chief point in the Paper was the fact of the child being brought round after the heart had ceased to beat, and not the form of instrument by which it was effected; but the one shown was recommended, both from its curve being adapted to the shape of the passages, and from the number of small openings at its point, as being safer and more effectual than any of the extemporaneous instruments alluded to. In addition, fluid could be sucked out by it. There was little risk of its causing emphysema. He had been much struck with the President's case.

*On Diastases in the Bones of the Lower Extremities of the Fœtus,
produced by the Accoucheur.*

By ALEXANDER RUSSELL SIMPSON, M.D., F.R.S.E.

Professor of Medicine and Midwifery and the Diseases of Women and Children in
the University of Edinburgh.

In relating a case of primiparal placenta prævia* to the Society a year ago, I thought it worthy of record, with regard to the infant, "that the day after its birth its left leg was found to be

* See my "Contributions to Obstetrics and Gynæcology," p. 76. Edinburgh, 1880.

greatly swollen ; there were abrasions of the skin above the malleoli, and the limb hung stiffly from the pelvis." I said "I was satisfied that there was no injury in bone or joint ; but I believe that laceration of some of the structures in the upper third of the thigh had taken place. The swelling was there very great, so that the skin became quite tense, and it looked blue, as from ecchymosis underneath. For a week the limb remained swollen and straight, but the swelling gradually subsided. The muscular power of the limb was restored, and now the infant, which is thriving on the milk of a wet nurse, moves the legs as naturally as if no damage had ever been sustained."

I added (p. 81) that "it was new to me to observe the lacerations of the muscles and vessels that had obviously taken place. But then," I said, "the infants brought into the world under similar circumstances are most frequently dead. Hence, though such injuries may have been inflicted on them, we have no vital reaction to betray the mischief."

I am not now so satisfied as I then was that the injuries were confined to the soft structures of the thigh and leg, for since then I have had the opportunity of examining the limb of a child extracted under somewhat similar circumstances by the same method. Only, it was a case of multiparal placenta prævia. It was the right leg that was seized and brought down ; and the child was dead before it was fully delivered.

In this instance the limb presented nothing special in its external appearance beyond a slight abrasion over the internal malleolus. There was no swelling or distortion of the limb ; and except that the foot seemed somewhat more loosely jointed to the leg, as if some of the ligaments had been torn, it might have been thought that no injury had been sustained. Certainly there was no deformity that the eye could detect, or crepitations that the finger could feel.

Yet at three different points fractures were found on dissection. They were all fractures of the kind known to surgeons as "diastases"—the shaft of the bone, that is to say, had become detached from the epiphysis.

The seats of the diastases in the right leg are, 1st, the upper end of the femur below the trochanters ; 2nd, the lower end of the tibia ; and 3rd, the lower end of the fibula.

There has also been some separation of the epiphysis of the lower end of the femur of the same (right) leg, for the epiphysis

is slightly movable on the diaphysis ; but] the upper ends of the tibia and fibula are quite firm.

In the *left leg* the epiphysis of the lower end of the tibia is loosened, but the epiphysis at both ends of the femur are firm.

In our textbooks and systems of midwifery little or no notice seems to be taken of the possibility of the occurrence of such fractures. For although cases of fracture of the shaft of the femur are mentioned by Smellie,* yet the whole subject of fracture of the bones of the extremities, especially of the lower extremities, of the foetus has been almost entirely overlooked in British obstetrical literature.

In the interesting article on Fractures of the Foetus, by Delore, in the French Dictionary of the Medical Sciences,† injuries of the tibia and fibula are not noticed ; and the fractures of the femur, which are fully treated of as to their mechanism, seat, prognosis, and treatment, are the usual fractures in the shaft, such as Smellie had described. Bailly‡ says, in a single sentence, “ One sometimes involuntarily detaches the epiphysis of the femur and the tibia in the tractions one makes on the lower extremities during pelvic version or in delivery by the breech.” But the most important contributions to the subject with which I am acquainted are, a Paper by Dr. Carl Ruge,§ who has demonstrated the unsuspected frequency with which injuries of the foetus are produced during delivery, and the extraordinary variety in their character, and an Essay by Dr. Otto Kuestner,|| who gives the bibliography of the subject very fully, and follows up Ruge’s observations with a series of experiments made with a view of determining the kind and amount of force required to produce the different varieties of injury of the bones.

Speaking of the injuries of the femur, Kuestner¶ says, “As regards the recorded cases of epiphysis-separation, Henke, indeed, notes the possibility that ‘the upper cartilaginous apophysis may be detached from the femur by strong traction on the foot ;’ but he records no case. Thudichum (*Illust. Med. Zeitung*, 1855) knows a case of separation of the upper epiphysis (Bertrandi) ; Ruge has

* Smellie’s “Midwifery,” edited by M’Clintock, vol. iii. p. 298 : Sydenham Society.

† “Dictionnaire Encyclopédique des Sciences Médicales,” iv. 201 : 1879.

‡ “Nouveau Dictionnaire de Médecine et de Chirurgie Pratique,” xv. 33 : 1872.

§ “Zeitschrift für Geburtshülfe und Frauenkrankheiten,” p. 86. Berlin, 1876.

|| “Die Typischen Verletzungen des Extremitätenknochen des Kindes durch den Geburtshelfer.” Halle, 1877.

¶ P. 45.

none ; to myself also no case is known. Yet my experiments show that hyper-abduction of the leg is very likely to produce this kind of injury ; the leg may get into this situation during version, perhaps also during extraction."

His experiments show that in the lower extremities the epiphyses that yield most easily under a strain are those at the lower end of the tibia and fibula. In one experiment the application of a weight of ten kilograms for two minutes produced a diastasis of these bones, with laceration of the periosteum. The weight having been kept on for four minutes, there was found besides to be great loosening of the upper tibial epiphysis, and rather less in the upper fibular epiphysis. The lower epiphysis of the femur was only slightly movable, the upper quite firm. He quotes an experiment of Pajot, who found the upper epiphysis of the femur intact after a strain of 63 kilograms had been applied ; found in his own experiments that a weight of 32 kilograms left it unaffected ; and doubts whether it can be injured under simple traction in a full-time fœtus. He finds, however, that this epiphysis very easily gives way from within outwards when the thigh is placed at right angles to the trunk and then moved strongly outwards. In the turning of the child in which I demonstrate the injuries to-night, it is just possible that traction may have been made on the limb when it was in this position ; it would not, however, have occurred to me to suppose so but for this observation of Kuestner.

Diagnosis.—The accoucheur should examine the limb of every child on which he has made traction in the operation of version. This will be all the more necessary where there has been difficulty in the extraction and any degree of pulling force has been employed. On thinking back over my own practice, I fancy such fractures as I have been describing must have taken place in one or two cases where I was aware of a kind of "chuck"—sound or sensation, I can hardly tell which. At the time I did not think more of it, as the children were dead, but suppose that some ligaments were torn. Such an observation now would lead me to suspect a diastasis in some of the long bones subjected to traction. When the separation between apophysis and diaphysis is complete, and attended by laceration of the periosteum all around, the hiatus will be easily traceable, and crepitation may be felt. Where there is simply loosening of the epiphysis, the diagnosis will be more difficult, as crepitation may not be perceptible. The injury need never be confounded with

dislocation, if Hofmokl* be correct in averring that attempts to produce dislocations in foetal cadavera at hip, elbow, and shoulder joints always fail, and end only in epiphysial separations.

Prognosis and Treatment.—Where the periosteum has been lacerated, it will be necessary to bandage the limb to keep the separated portions of bone in apposition. Otherwise the healing will take place under the natural processes. Only it would always be desirable to make sure that the limb is not subjected to any strain or sudden movements, and, as Kuestner suggests, it may be proper to watch such cases to see whether any ultimate influence be exerted on the growth of the injured bone.

The PRESIDENT had been extremely interested in the Paper. It recalled to his recollection a case he saw with Dr. Affleck, where for impacted cross birth he performed spondylotomy. The child had separation of the diaphyses of the ankle and knee in consequence of the abortive attempts to procure version before the spondylotomy. The subject was quite new to him, but in future he would watch in all cases of version, and endeavour to detect any such lesions, if they occurred.

Dr. CROOM had, in cases of turning, felt a "chuck" sometimes, probably due, as Dr. Simpson had shown, to a separation at the epiphysis.

Professor SIMPSON remarked on the rarity of cases of lameness after turning. In the case of placenta prævia he had alluded to, the child died from bronchitis when six months old.

OBSTETRICAL SOCIETY OF DUBLIN.

Meeting, Saturday, February 7, 1880.

E. B. SINCLAIR, A.M., M.D., *President, in the Chair.*

The late Sir Dominic Corrigan.

The PRESIDENT.—I think it necessary to say one or two words relative to an event which has saddened us all. We have recently placed in the grave our old friend, Sir Dominic Corrigan. To him, I may say, we owe the existence of the College in which we meet to-night. Through his energy and perseverance the College of

* *Oesterreich. Med. Jahrb.*, Heft iii. s. 351. See Canstatt's *Jahresbericht*, 1877, ii. 633.

Physicians was removed from the position of being roomkeepers in Sir Patrick Dun's Hospital and placed in this magnificent Hall. I am sure we all personally regard his memory as that of a dear friend. I will say nothing here of his professional eminence, which has been spoken of already, but I think it behoves this Society to pass a resolution of condolence with Lady Corrigan and the members of the deceased baronet's family.

The Rev. Prof. HAUGHTON, F.R.S.—Although the late Sir Dominic Corrigan was not a member of this Society, it is well known, sir, that he felt the deepest interest in everything that related to the advancement of the profession generally, no matter what department of it was concerned, and we would discredit ourselves if we allowed the event of the death of one whom I may speak of as the last of the old Dublin physicians to pass without making an appropriate record of it on our minutes. Therefore, with the permission of the Society, I would propose the following resolution:—"That this Society desires to place on record their sense of the great loss the whole Medical Profession has sustained in the death of Sir Dominic J. Corrigan, Bart., and to convey to Lady Corrigan and her family their heartfelt sympathy with them in their great bereavement."

Dr. MACSWINEY.—I beg to second the resolution which has been so ably proposed by Dr. Haughton. It had occurred to me that it would be extremely becoming on the part of this distinguished Society to join the other medical bodies in testifying their feeling with respect to the great loss the whole profession has sustained. Sir Dominic Corrigan, although not a member of this Society, was an Irish physician and a member of the great historic body of Irish Medicine, and in that capacity his sympathies were with every one of the sections into which Medicine is necessarily subdivided. Consequently it was not alone for the Medical Society of the College of Physicians and the other bodies with whom he was identified to express their sentiments on the present occasion, but this Society, which, ambitious to take a foremost position amongst the medical bodies of the country, should not remain behindhand on the occasion. As Dr. Haughton and yourself, sir, have refrained from entering upon the question of the eminent medical position of the deceased baronet, it will suffice for me to say that his name will for ever form a part of Irish medical history.

The resolution was put and carried unanimously.

Erythema Uterinum, or Roscola Uterina.

By GEORGE H. KIDD, M.D., &c.

The diseased condition I propose to bring under notice to-night, though trivial in itself, seems to me to possess features of clinical and pathological importance sufficient to warrant my inviting the attention of this learned Society to its consideration, and my attempting to give it a name and a place in a nosological scale. I have, therefore, headed my paper with the name *erythema uterinum*, or, to avoid the combination of a Greek and a Latin word, *roscola uterina*, *erythema* or *roscola*, because of the character of the eruption on the skin, and uterine as depending on the condition of the uterus.

Though the disease is not at all infrequent in its occurrence, it has never, so far as I can learn, been described in any of our books.* I have met with it most frequently in patients in childbed, but also after trivial operations on the uterus in women who have never been pregnant. I have seen it occur twice in consecutive labours in the same patient, and I am inclined to think this is not an exceptional case; and looking back, though I cannot produce the actual figures, I believe I am right in saying it has occurred in at least 3 per cent. of the midwifery cases I have attended, and very great anxiety it caused me when I first began to observe it, fearing it was scarlatina my patient was getting.

That it will be found to be of not infrequent occurrence when attention is directed to it seems not improbable from the following letter from Dr. Atthill, who, when I mentioned to him my intention to bring forward this Paper, said he could not recollect having ever met with such a case, and yet the very patient beside whom we were standing showed the eruption on the third day:—

“DEAR KIDD,—In consequence of the death of two near relatives, I cannot attend the meeting on Saturday; but perhaps it may interest you to know that the lady you assisted me to deliver on Sunday, the 7th, was on the third day covered with the rash you describe. There was a good deal of irritation, but no real fever. Lochia and secretion of milk normal.

“I am, yours,

“LOMBE ATTHILL.”

The history of it is this:—On the third, fourth, or fifth day after delivery, attention is drawn to the condition of the skin of the

* The author of the article in Ziemssen's "Cyclop. of Medicine" (Thomas) describes a scarlatino-erythematous dermatitis as occurring in puerperal women, which is, he says, quite distinct from true scarlatina; but the condition he describes does not correspond with the disease I am about to speak of.

abdomen by the patient's complaining of its being irritable and itchy, which she will probably attribute to the pressure of the binder ; or the nurse will say that when applying the binder she has discovered an eruption like that of scarlatina. On making an examination, an eruption is found in broad patches over the abdomen, which in a few hours spreads over the whole of this region. In appearance it so closely resembles a mild scarlatina eruption that it could not in this respect be distinguished from it. Next day the axillæ will present a similar eruption, but perhaps paler in colour. This will extend over the chest and downwards till it meet that on the abdomen, and upwards covering the neck, but not affecting the face beyond deepening its natural colour. It will creep down the arms, and in many cases affect the hands, on the backs of which it will have a more dusky shade than elsewhere. At the same time it extends down the thighs and legs, and covers the back, but always extending in broad patches. During all this time there is no fever ; the pulse and temperature are normal ; the lochia and milk are unaffected ; the patient takes her food as usual. There is neither headache nor redness, swelling nor inflammation of the tonsils. The eruption begins to disappear about the end of the second or beginning of the third day after its first appearance. The parts last affected begin to grow pale, and it soon disappears entirely, except from the abdomen, where it will remain in patches, it may be, for five or six days. The disappearance of the eruption is not followed by any desquamation of the cuticle, affection of the kidneys, or œdema of the extremities, nor does the patient's convalescence seem to be in any way retarded.

The foregoing is, as it were, a sketch of a typical case, but varieties occur. In one case the eruption was more marked on the back than on the front of the body, and the reddened surface had minute vesicles scattered, not very closely, over it. These vesicles were rather larger and flatter than those of the ordinary miliary eruption, and they dried up, forming minute scales, without becoming opaque or purulent. It may be worth mentioning that this patient was of a very marked hysterical temperament, and afterwards suffered from hysterical aphonia and a hysterical condition of her knees. In another case the appearance of the eruption was preceded the night before by intense headache, with sick stomach, and the nurse thought she was slightly delirious through the night. When I visited her the following morning the headache and other symptoms had disappeared, and there were patches

of eruption on the abdomen, but there was an utter absence of fever and constitutional disturbance. On investigation, it was found she was subject to attacks of megrim, or sick headache, and the occurrence of it at this time seemed to be merely a coincidence. In two instances I have seen this form of erythema very well marked after so trivial an operation as the slitting of the os for dysmenorrhœa.

The clinical interest of this eruption arises from the resemblance it has to scarlatina and the erythematous stage of smallpox ; but the entire absence of fever and constitutional disturbance serves to distinguish it from either. One form of the erythema that often precedes the eruption of smallpox resembles it, somewhat, in the place in which it makes its appearance—that is, on the abdomen. Hebra describes it as follows :—“ Quite at the beginning of the preliminary febrile symptoms of smallpox there is, in some cases, observed on the abdomen and on the inner sides of the thighs a rash, which is sometimes a mere hyperæmia, and disappears beneath the pressure of the finger, but which is, in other instances, of an hæmorrhagic nature, and then persists without change. This rash invariably remains confined to a space bounded above by an imaginary line drawn transversely across the umbilicus—at the sides by the lumbar regions, and below by a line traced across both thighs, about three fingers' breadths above the knees. It also extends further outwards in the inguinal region than lower down towards the knees ; so that when the thighs are pressed together, the area occupied by the rash forms a triangle, with its apex directed downwards. Some two or three days after its appearance the true smallpox eruption begins.” About this time last year, when the epidemic of smallpox was at its height in Dublin, I was asked to see a lady who had been prematurely confined, and was supposed to have peritonitis ; but I was able, from detecting this eruption, and from the concomitant symptoms, to say she was developing smallpox, of which disease she died within a week. The erythema I describe is not limited to so definite a space as the erythema variolosum of Hebra, and it begins on the lumbar or hypochondriac region rather than on the inguinal. Above all it is not accompanied by fever, as is the other.

It seems unnecessary to dwell here on the diagnosis of the other eruptions observed in the puerperal state—septic eruptions, the so-called malignant scarlatina, erysipelas, the erysipelatous

tumours of Denman, the appearance of which he calls "a mortal sign," or the varieties of the miliary eruption, with none of which could the erythema now described be confounded.

In the title of this paper the adjective "uterinum" is added to erythema, to indicate that the eruption depends on the condition of the uterus, in the same way that the older writers speak of "chloasma uterinum," to show their belief that the brown spots, occurring on the skin during pregnancy, depend on the state of this organ.

In a very interesting lecture published in 1872, and of which a full abstract may be found in the *Medical Times and Gazette* for the 4th of January, 1873, Professor Hebra gives an account of some affections of the skin, occurring in pregnant and puerperal women, which he looks on as certainly dependent on the condition of the uterus; and in a paper on "Herpes Gestationis," in the *American Journal of Obstetrics* for February, 1874, Dr. Bulkley, of New York, quotes Hebra's paper, gives additional cases, and takes the same view. I am indebted to my friend, Dr. Walter Smith, for a reference to these and other papers on the same subject.

Hebra says his object is to draw attention to some affections of the general surface which are, for the most part, met with during the early months of pregnancy, and either disappear during the later months, prior to delivery, or only terminate during the puerperal period. He describes cases of acne, pruritus, eczema, erythema, urticaria, and pemphigus; also five cases of a pustular eruption hitherto undescribed, but from which four of the patients died. "It is of great interest," Hebra says, "to observe that the physiological changes in the uterus, which accompany the condition of pregnancy, give rise to similar diseased conditions of the general surface as are met with in various pathological conditions of the internal female organs." And, after enumerating various examples, he proceeds to say:—"We see, therefore, that there are manifold processes of disease, which, by their localization in the sexual apparatus, call forth diseased conditions of the general surface, which do not appear when the same processes affect other organs. It should," he says, "prove an object of interest for gynæcologists to investigate the nature of this connection between the skin and internal genital organs."

Following the same line, Dr. Bulkley relates a case in which a herpetic eruption appeared in two successive pregnancies in a patient under his care, and analyses the reports of nine other

cases of nearly the same character related by Hebra and other authors. He adopts the view that these herpetic affections, as well as many other diseases of the skin met with in pregnancy, are of nerve origin. "The nerve origin," he says, "of many diseases of the skin has now passed beyond the region of conjecture ; and although it would be out of place here to study the mode of production of the lesions, we may mention some of the results observed, and their relation to each other." Dr. Woaks, he says, has collected numerous instances where injury or shock was associated with neuralgic symptoms and alterations, to varying degrees, in the skin supplied by the nerves implicated. Erythema, eczema, herpes, and ulceration were observed thus connected ; and herpes zoster being especially studied with reference to shock from the impression of cold, the conclusion was arrived at, he says, quoting Dr. Woaks's words from a paper in the *Journal of Cutaneous Medicine*, that, owing to the suspension of the regulating power, exercised mainly by the sympathetic nerves over a given artery, effusion of fluid takes place from its ultimate ramifications. These being distributed to the skin on the one hand, and to the texture of the sensory nerves on the other, the effusion so caused produces the herpetic rash in the former, and pain from mechanical pressure in the latter. Dr. Bulkley also refers to a paper in the *Journal of Cutaneous Medicine* by Handfield Jones, who, he says, recognizes vaso motor paresis as a cause of many affections of the skin, and instances zona, pemphigus, hyperidrosis, urticaria, and hyperæmia as connected with, and evidently dependent on, weakened and relaxed nerve power. This neuropathology of some skin diseases is, Dr. Bulkley says, recognized by very many in textbooks and elsewhere ; and after alluding to the fact that the nerves of the uterus are enlarged during pregnancy, he says :—"Consequently we are not surprised to find cutaneous disorders, especially attributable to nerve paresis, occurring repeatedly during that state. As before stated, the simplest and most common derangement observed is simple pruritus, or irritation of the sensory nerves of the skin. When, now, there is still greater nerve irritation, paresis of the vaso-motor nerves ensues, causing hyperæmia, and fluid is poured out in varying quantity, giving rise to urticaria, eczema, herpes, and pemphigus, according to its extent and to individual idiosyncrasy—the first being the least expressed form, and the last the greatest, of confined and limited exudation."

I have attempted by these rather extended quotations to show what Hebra says should be an object of interest to gynæcologists—"the true nature of the connection between the skin and internal genital organs," and also to show that this neuro-pathology affords the most feasible explanation of the occurrence of this red eruption, extending often over the whole surface of the body, and sometimes having a vesicular eruption intermixed with it, and yet without fever or constitutional disturbance. The internal surface of the uterus after delivery has been compared by Cruveilhier to an open wound: the nerves supplying this great wound are enlarged; the long-continued irritation of these enlarged and exposed nerves exhausts the centres with which they are connected; and hence the vaso-motor nerves proceeding from these centres are paralyzed for the time being, the arteries controlled by them relax and admit an excessive quantity of blood to the capillaries of the skin—hence the redness or erythema. If the capillaries be so full that they cannot accommodate themselves to the pressure, they pour out serum, and hence vesicles occur. As soon as the irritation of the peripheral nerves ceases, the nerve centres recover their power, the arteries are again controlled, and the erythema disappears, the whole process from beginning to end taking place without fever or constitutional disturbance.

The whole of this subject, of the connection between the skin and the internal genital organs, is full of interest, and furnishes a fertile field for further investigation; but the skin is not the only organ whose relation to the organs of generation deserves investigation. Rokitansky has shown, as I have been reminded by my friend, Dr. Corley, that in many women a new layer of bone is deposited on the inner surface of the skull at each pregnancy. "Each new pregnancy tends to add, Professor Simon says, another lamina to this growth, and when several such layers have been formed, they are preserved (at least for a long time) distinct from each other by a sort of diploe, which intervenes between them; so that their aggregate might form a sort of tally of the woman's puerperal achievements, as the rings of wood in a tree indicate the age of its trunk." The cases collected by Hebra and Bulkley refer chiefly to the condition of the uterus during pregnancy. May we not refer to the ptyalism many patients suffer from during this state as another example of reflex action manifesting itself on other organs than the skin. The eruption I have now described occurs after gestation has been completed and the

uterus has been emptied of its contents, and so is a step further on ; but the reflex manifestations from the unimpregnated uterus are not by any means less remarkable. I have long had under my observation a lady who, from the age of puberty, when other girls begin to menstruate, suffered every fourth week from a herpetic eruption on her hands and feet, which extended half way up her forearms ; sometimes bullæ, as large as a shilling, would form, and after a day or two begin to dry up without changing colour, and at the end of the week fall off in scales. Menstruation was not established till she was seventeen or eighteen, and has ever since been very irregular. To the present day, when she misses a period, the eruption comes. Sometimes she feels it beginning, and then menstruation commences, and the eruption at once disappears. She has married, and had three children, and when pregnant or nursing she has no eruption, but when she misses a period, when she ought to menstruate, the eruption still comes. Another patient, with dysmenorrhœa depending on a small os and uterine catarrh, got a herpetic eruption all over her back and shoulders at each period. She came into the Coombe Hospital and I slit the os, curing her of dysmenorrhœa and catarrh, and so long as she was under observation she had no return of the eruption ; but as she came from Kentucky for treatment, and returned there, I cannot tell whether the improvement was permanent. Mrs. W. came under my care on the 28th October, 1878. Married seven years ; never pregnant ; has always had dysmenorrhœa ; menstruation profuse ; pain begins several days before the discharge appears, and at the same time the breasts swell and become painful ; has violent and almost unceasing sneezing fits for one or two days before the menstrual discharge occurs, but at no other time. She had a copious catarrhal discharge from the uterus, the posterior lip was enlarged, the fundus retroflexed ; the sound passed the os internum with difficulty. Here was dysmenorrhœa depending on endocervicitis and retroflexion of the fundus, with a considerable amount of ovarian irritation ; by curing these the dysmenorrhœa has been entirely relieved, and the sneezing fits have altogether ceased. Was not the sneezing a reflex irritation from the diseased organs of generation ? In the case of Mrs. D., who came under my care on the 16th January last, there was evidence of obstructive dysmenorrhœa, complicated for the last two years with ovarian irritation, and the right ovary is enlarged and painful. Every menstrual period is preceded by the appearance of aphthæ

on the insides of the cheeks and on the tongue and gums. This occurs so regularly as to prove its connection with the menstrual process, and, as the local disease has not yet yielded to treatment, the aphthæ still recur, greatly to the distress of the patient.

Sir James Paget, Dr. Marsh, Mr. Paley, Dr. Goodhart, and others, have recently directed attention to scarlatina as occurring frequently after operations. In Paget's and Marsh's cases the eruption has occurred chiefly after lithotomy, and in most of them it has evidently true scarlatina, but in some the history of scarlatina is not clear. Dr. Goodhart, the most recent writer on the subject, evidently entertains doubt as to some of his cases being of this nature, and it certainly appears to me probable that some of these surgical scarlatinas are really instances of reflex eruptions.

Dr. M'CLINTOCK.—I have occasionally observed an appearance of rash, resembling roseola or erythema, on patients a few days after their confinement, but as it was not attended by any pyrexial symptoms worthy of notice, and did not involve any great extent of surface, I attached no importance to it. Dr. Kidd has carefully investigated this subject, and shown the connection occasionally existing between this eruption and the puerperal state. The practical conclusion to be drawn from his paper is that an eruption of the kind may involve more or less of the trunk and extremities, but if unattended with fever need not excite alarm. On one occasion the eruption was sufficiently extensive to cause me some uneasiness. Dr. Walter Smith saw the case with me. The lady was confined of her first child in April, 1874. She was only seven hours ill. She got chloroform freely, but not ergot, and had no hæmorrhage. Milk was very abundantly secreted, and her breasts were distended upon the fifth day, when a copious eruption appeared on her trunk, arms, shoulders, and neck of an erythematous nature, with little papular elevations here and there. At first I thought she was getting measles, but Dr. Smith and I afterwards came to the conclusion that it was an example of erythema papulatum. There was no rise of temperature or acceleration of pulse. The rash continued for two or three days, and then faded away, and she made a perfect recovery. She has had three children since, and on none of these occasions was there any return of rash. It does not appear from Dr. Kidd's researches that this rash has any peculiar or distinctive character. We know that in rheumatism an erythematous rash is a common thing, and has received the name of *roseola rheumatica* or *arthritica*. In cholera also a peculiar form

of roseola is often present ; and after the use of indigestible food nothing is more common than to see erythema or urticaria appearing on the skin. In amenorrhœa also it is not uncommon to see erythema present. Dr. Kidd is entitled to very great credit for tracing up the connection between erythema and affections of the uterus.

Dr. DENHAM.—It is very important that we should know this affection so as to distinguish it from other diseases. I believe that this erythema or roseola which Dr. Kidd describes is a thing which occurs from infancy almost until the last stage of existence. It is something the same as what we call red gum in infants. We also see it when children are teething, and very often after vaccination. It is very common amongst the symptoms which usher in smallpox. It resembles what we call nettle-rash, which has been noticed as ensuing from such a variety of causes that it is very difficult to name it in connexion with any particular cause. I am aware of a case of the wife of a medical man who, if she took oatmeal gruel after her confinement, would be sure to have nettle-rash. In other persons the eating of mushrooms or lobster salad would produce the same effects, and the use of balsam of copaiba has been known to induce a severe form of it. Within the last week I attended a lady in Clontarf on the third or fourth day after her confinement, and she told me she had an eruption on the abdomen and arms. On examining her I found that she had precisely the disease which Dr. Kidd has described. Her tongue was clean, her pulse quiet, and there was no interference with her rest—in fact, she required no treatment whatever.

The Rev. Dr. HAUGHTON.—I would venture to remark that I feel greatly comforted by what Dr. Denham has said, which leads me to conclude, that in the medicine of the future, when we shall have to report at the nearest police-station the exact form of disease which our patients get, the midwifery practitioners will not be likely to confound trifling eruptions of the kind described with more serious diseases. I speak of the “medicine of the future,” for I do not think we shall live to see such regulations carried out.

Dr. HENRY KENNEDY.—I confess I am inclined to attach to this affection more importance than Dr. M'Clintock and Dr. Denham have done. I have seen cases in Cork-street Hospital in which, four or five days after fever had commenced, a redness had appeared on the skin, and it was very difficult to say what it was. It disappeared long before the time for ordinary spots. Cases

occur in which it is by no means easy to say what is the nature of the rash. I have been asked about cases in which the question was whether it was scarlatina or not, and, fortunately, former experience enabled me to say what it was. The rash is more commonly of the nature of roseola than anything else. It could never be, in my experience, confounded with urticaria, to which Dr. Denham has alluded. There are no wheals, nor any elevation of the skin, or commonly any itching. In hospital I have seen the disease mistaken for scarlatina. The great difference appears to be that in the case of this rash the pulse is not accelerated, although sometimes there is a little fever. As a rule the eruption pervades the whole body, but I have seen it also in patches. Several years since I used to make a good many post-mortem examinations, and I observed this rash sometimes in patches on the skin, but it was very hard to define its character ; sometimes it was like erysipelas, and at other times like scarlatina. The red patches existed before death, and were very much lessened after death. I frequently saw the signs of redness coming out of mucous passages at the nose and cheeks, and spreading from the vagina to the thighs. I am now speaking only of dead bodies.

Dr. DOYLE.—Dr. Kidd states that in his cases the surface affected with erythema was irritable and itchy. I have known erythema to occur after the use of belladonna, and also an urticarious eruption to follow the local application of opium in ulcers of the leg. I have known a quarter of a grain of opium to produce that effect.

Dr. MACSWINEY.—Obstetric practitioners are indebted to Dr. Kidd for his carefully prepared history of these eruptions. The great point of interest in the communication is the establishment of a connection between the uterus and the eruption. We all know that there are numerous circumstances which produce cutaneous eruptions, including errors of diet and peculiar medicines. But here the fact appears to be clearly made out of a connection between the genital apparatus and the skin, through the vasomotor system of nerves. I have been recently to see a lady in the early months of pregnancy, and who had gone through six or seven pregnancies, and she informed me that in every instance she had been able to say that she was pregnant from the appearance of a peculiar eruption between her shoulders.

The PRESIDENT.—I do not think there is anything marvellous in the skin sympathizing with uterine irritation. I have

not the least doubt that erythema occurring in connection with delivery has been frequently mistaken for scarlatina, and this would account for the asserted cases of recovery from scarlatina in connexion with confinement; whereas, we know very well that when scarlatina attacks a woman immediately after delivery it is nearly always fatal. Therefore I believe that a great number of those asserted cases of recovery from scarlatina after delivery were in reality nothing more than cases of the occurrence of this peculiar rash, arising from sympathy between the uterus and the skin, which is easily accounted for, because the skin as a surface is continuous with the mucous membrane.

Abortion Forceps.

Dr. ROE exhibited a forceps which he had made for him by Messrs. White, of Sackville Street, and which he thought was an improvement on the instruments generally used for the removal of an ovum or placenta. The direction of the blades being indicated by the handle, the absence of teeth, and therefore less liability of conveying infection, and the position of the joint, which, being an inch nearer to the handles, allows a much greater separation of the blades with less divarication of the handles, are the principal improvements claimed for it.

Case of Phantom Tumour simulating Pregnancy, which occurred in the Zoological Gardens.

By the Rev. Dr. HAUGHTON.

Your Secretary asked me to bring forward a communication here, but it was not until the present winter that I was in a position to bring forward a case of phantom tumour simulating pregnancy which occurred in one of the animals under my care in the Zoological Gardens, and which I thought would be worthy of the consideration of a body of physiologists such as I see here. Phantom tumour in connection with hysteria is perfectly well known in the human species. Phantom tumour simulating pregnancy is a definite kind of it connected with the female mental condition. I have seen phantom tumours simulating dropsy and simulating ovarian tumours, but I do not speak of them—I speak of the more common case of phantom tumour simulating pregnancy amongst women, which every one here is more or less familiar with. And having found a well-defined case of phantom tumour simulating pregnancy in a lower animal, I thought that

a careful study of it would clear the ground for the more philosophical study of what occurs amongst women, as all idea of the mental disturbance which enters so largely into our notion of the phenomenon when it occurs amongst women would be almost eliminated. In the case, suppose, of a young woman married to a man much older than herself, and where a large property is involved, she naturally has a most anxious desire to produce a child. We all know that in such cases phantom tumours have occurred and have run through a course of simulating pregnancy which has deceived the most experienced nurses and very often the most experienced practitioners, except that in none of those cases has any one ever observed a foetal heart with the stethoscope. And in some cases the patient has been carried away to a distance and delivered of nothing at all, and a supposititious heir has afterwards been brought in. But the case I have to describe has no romance connected with it. It was a transaction between a she-ass, a male zebra, and myself. I purchased some years ago at Antwerp a fine specimen of the rare variety of the zebra called Burtchaell zebra. I may mention that the whole species of zebras are becoming extinct—the white and black zebra is almost so. The Burtchaell zebra, which is brown and black, is a very handsome animal, and is rarer than the black and white one. The father and mother of the animal I bought came from Africa, and bred in the Zoological Gardens of Antwerp, so that the young zebra was acclimatized, and I had reason to hope that he would prove healthy in Dublin. He has done so. I endeavoured to procure for him as a partner a female pony, but could not succeed in doing so, the prices of ponies having risen almost above that of a zebra. Under the circumstances I procured for him a healthy three-year-old virgin ass from the county Kildare. It was absolutely necessary to have a female ass that had not previously had intercourse with either a horse or a male ass, because it is well known among cattle breeders that the first intercourse gives a stamp to the subsequent offspring. Intercourse took place frequently between the two animals, and appeared complete. I may remark here that a mule—which is the cross between a male ass and a mare—is more easily produced than a jennet—which is the produce of a stallion horse and a female ass. The ass, like the horse, is a tropical animal, both having come from Central Asia and Arabia; and I may add, which is not so generally known, that it is a great mistake to suppose that the

horse was introduced into America from Europe. It is true that when the Spaniards conquered Mexico, the inhabitants of the latter country were greatly alarmed at seeing men riding on horses. But Professor Marsh, of Yale College, who has recently made such extraordinary discoveries of fossil animals in South America, tells us how he heard a great German philosopher of Heidelberg describe the horse as not a native of America at all, but as having been introduced into that continent from Europe, but that he (Professor Marsh) himself has discovered by those fossils that, although within historic times the horse had disappeared from both North and South America, and was re-introduced there from Europe, the animal originally came from North America. It was then about the size of a fox, and afterwards grew to that of a sheep, and American palæontologists have traced the animal until it became the true horse. Then they ranged in large numbers across North and South America, and crossed Behring Straits into Asia and Europe, after which they died out in America.

The original animal had five fingers and five toes. It is well known that in higher latitudes the female animals come more rarely into season than they do in warmer climates, because the season must be regulated, so that the young can have summer weather. But the mare and female ass are tropical animals, and, therefore, even in their present acclimatized condition, come into season at intervals of five weeks, and remain so from ten to fourteen days. Therefore, in the present instance, we had no difficulty in deciding that the animal was in foal, although I did not trust to my own observation in the matter, but called in that of a skilled man, who was accustomed to the breeding of horses and asses. The period of gestation in both the horse and the ass is eleven months. After the first six weeks the ass in question seemed—to use the words of old Weller—to be “wisibly swelling” before our eyes. “Just feel the foal inside her, sir,” said the man; but my imagination did not go so far as that. The eleven months expired. I had already discounted the result as a handsome zebra foal worth fifty pounds, but to my great disgust nothing came of it, and then I was informed that the ass had come into season again. We gave her the zebra again, and she swelled again, but at the end of the eleven months the result was precisely the same as before. Now, in this case, mental element is got rid of, because the ass had no object in deceiving the zebra. Dr. Macan came out one morning and tried to examine her with the

stethoscope, but found that her hair put him out so much, that if there had been fifty foetal sounds inside her could not have heard them. I should mention that on the first occasion it occurred to both the man in charge and myself that she might have aborted during the night and eaten the produce. We carefully examined the place, and found not the slightest trace of placenta or blood, or anything of the sort. Before giving her the zebra again I allowed three or four periods of five weeks to pass, so as to give her a rest of nearly four months. Then she became large again, apparently with a fresh pregnancy. On each disappearance of the swelling her abdomen returned to its normal size in one day.

Dr. M'CLINTOCK.—Was percussion of the tumour tried? The ass has something like a menstruation every five weeks and continues in season for about ten days. In the human subject obstruction of the menses is sometimes attended with swelling of the abdomen. We know that brutes have far more intelligence and even feeling than they are usually credited with. A remarkable strong feeling accompanies sexual intercourse in animals, and I do not think it altogether impossible that something analogous to a psychological element may have operated in this instance.

Dr. DENHAM.—A point of particular interest in the case is the cessation of the menstrual discharge in the animal for each period of eleven months. I remember a case of phantom tumour which occurred while I was Master of the Lying-in Hospital. The young girl who had it was not married. You could get your hand round it and move it about; but in one night a considerable quantity of flatus escaped from her, and the tumour disappeared. She was so delighted that she got up and danced about the ward, but after a short time the tumour re-appeared again.

Dr. HENRY KENNEDY.—We have now chloroform as a means of diagnosing phantom tumours. I believe that it is not a very easy matter to produce pregnancy between two different animals such as those in question. Nature has set the difficulty in the way herself. It is quite possible that the feeling of the ass may have been in opposition to it. We know it is stated on the authority of the greatest obstetricians that if the human female does not enter into the act she will not conceive.

The Rev. Dr. HAUGHTON.—That is not so.

Dr. MACSWINEY.—The investigations of Lord Spencer in England, and various observations made by other authorities, go to show that in the horse, the ass, the sheep, the cow, and some other

animals, the period of utero-gestation varies within a limit of from forty to sixty days.

The PRESIDENT.—I never saw but one phantom tumour, as it was called, and that was in the case of a lady whom I was asked to see by an eminent man in this city. I may say that I am rather sceptical about phantom tumours. I believe that a woman might be puffed up with wind, but in the case to which I refer I examined the lady and found a tumour close to the umbilicus, which from its conformation looked exactly like pregnancy. I found that I could isolate it, and was thunderstruck when, on pressing it backwards, I found that I could nearly touch the spine; but as I did that two or three times I thought I felt a slight tap against my hand. I examined her carefully with a stethoscope, and heard a bruit, but no foetal heart. I came away without examining her nipples, or showing the slightest indication that I expected pregnancy. I was asked to see her again, and on using a stethoscope instantly heard a loud foetal heart. That was the end of the phantom tumour. But let me tell you something about vegetables which bears on the subject. I tried to cross a vegetable marrow with a cucumber by crossing the male blossom of the latter with the female of the former. The vegetable marrow increased in size and ripened magnificently, but on opening it I found the interior covered with a hard glassy membrane as smooth as possible, and not the slightest attempt at a seed. But there it was, large in the family-way. I knew a case of a lady who, after having been married for many years, suddenly thought in her old age that, like Sarah, she had become pregnant. She had “swelled visibly,” and began to make the baby-clothes. Her husband was a medical man, and repeatedly said—“Well, I ought to know something about this, and I’m blessed if I think you are that way.” She thought otherwise, and her friends were congratulating her, when suddenly it all ended in wind. I object to the term “phantom tumour,”

The Rev. Dr. HAUGHTON (in reply).—Dr. M’Clintock will remember the Greek word *storgé* (στοργή), meaning chiefly maternal instinct. The ancients attributed to all animals a greater amount of *storgé* than they thought was possessed by woman in whom intelligence and reason replaced the instincts meant by that term. I have no doubt that the idea of being in foal may have been in the ass’s mind, and may have influenced her physiological condition. The man in charge of her and myself both observed that her mammary glands were enlarged, and that at the last moment they

went down along with the phantom tumour when the supposed pregnancy was over. In the case of a woman a temporary obstruction of menstruating might produce a swelling, but we never knew a woman to stop menstruating for nine months who did not produce a child at the end of that time. As soon as I am in possession of the requisite amount of information, I hope to read a paper before the Society on what I call the "sexual physiological constants" of animals, including ourselves. I believe the value of these constants to be very extraordinary, and to have been not yet recognized. With regard to Dr. MacSwiney's statement as to the variation in the periods of utero-gestation, I believe that that alleged variation rests on imperfect evidence. From careful observation of a variety of animals, including the carnivores, I believe that the physiological constants to which I refer are of great value. Until we brought the llama into the Zoological Gardens there used to be the greatest diversity of opinion as to the period of gestation of the llama. I had an opportunity of dissecting a llama that burst her uterus in the effort to produce young, and for the first time I saw the placenta of a llama, and to my astonishment observed that it was diffuse and undistinguishable from that of the horse or camel. Up to that time it had been believed that the llama was connected with the ruminant groups of animals, and that it had a cotyledonous placenta like that of a cow. The difference between the placenta of the horse and the cow establishes a gulf between these two animals, and renders them further apart than man is from the monkey. Therefore, observations upon them cannot be lumped together. I made careful observations on ten or twelve pregnancies of the llama, and these gave me the period of gestation identical with the records of Italian breeders of camels and with those of our own breeders of horses. Up to about four years ago the statement of Aristotle, in his history of animals, that nothing was known about the period of gestation of the elephant, was repeated in every book on natural history, although Aristotle put it down as about eleven months, like that of the camel and the horse; but a friend of mine, who is in the medical service of the Assam branch of the East Indian army, told me that it was a great mistake to suppose that that period was not known. He mentioned that for ten years they had tried to breed elephants in the hope of rearing them up for sale, but had been obliged to give it up. They found that the elephants which had been caught wild and conquered by fire and force were impressed for the remainder of their lives with a terror of man that they never lost, but

that the young elephants that were bred up in a domesticated condition became quite dangerous after the fourth year, and would try to murder their keepers, even though they might previously have been brought up as pets. But the period of gestation of the female elephant was observed to be twenty-two months, which is exactly double that of the camel and horse, and is a remarkable numerical relation. We know that the elephant is a more ancient animal than either the horse or the camel. With regard to the period of gestation, it appears to vary somewhat in animals living in the domesticated state.

The PRESIDENT.—I have read that the variation sometimes amounts to a third of the whole period. You will find it in Montgomery's "Symptoms and Signs of Pregnancy."

The Rev. Dr. HAUGHTON.—With regard to the large and small cats, all I can say is, that from the Bengal tiger and the Babylonian and the African lion, and all through the pumas and jaguars of America and the cheetahs of India, down to the Egyptian cats, the period of gestation is known to be the same through all these cats.

The PRESIDENT said they were very much obliged to Dr. Haughton for his communication.

The Society then adjourned.

Gynæcic Summary.

Rupture of Ovarian Pampiniform Plexus: Fatal Hæmorrhage.
—A specimen, illustrating this, was exhibited to the Anatomical and Surgical Society of Brooklyn, by Dr. G. R. Fowler. The patient, twenty-two days after the cessation of menstruation, in the evening, felt a sudden pain of short duration in the region of the left ovary. This recurred the next morning, and symptoms of profound shock rapidly developed. The patient, however, rallied, but symptoms of acute peritonitis developed themselves, and she died on the third day. At the autopsy the peritoneal cavity was found filled with fluid and clotted blood. The usual evidences of peritonitis were well marked. Prolonged search revealed no other source for the hæmorrhage than the ruptured vein. The uterus was perfectly normal. There was no traceable immediate cause for the rupture. Its first occurrence and recurrence took place when the patient was quietly sitting.—(*Annals of the Anatomical and Surgical Society of Brooklyn*, Feb. 1880.)

BOOKS, PAMPHLETS, &c. RECEIVED.

"Science and Practice of Midwifery." By Dr. W. S. Playfair. Third Edition. (Smith, Elder and Co.)

"Notes on Diseases of Women." By J. J. Reynolds, M.R.C.S. Eng. (J. and A. Churchill.)

"Peptonized Milk as Food for Infants and Invalids." By R. J. Nunn, M.D. (Reprint from the *American Journal of Obstetrics and Diseases of Women and Children*.)

"The Dangers Incident to the Simplest Uterine Manipulations and Operations." By G. J. Engelmann, M.D. (Reprint from *Transactions Missouri State Medical Society*.)

"Contributions to Gynæcology," No. X. By John Byrne, M.D., Brooklyn. (Reprint from the *Annals of the Anatomical and Surgical Society of Brooklyn*.)

"Sick Nursing at Home." By S. F. A. Caulfield. (London: *The Bazaar Office*, 170, Strand, W.C.)

"Beitrag zur Lehre von den Kystischen Unterleibsgeschwülsten, myoma lymphangiectodes ligamenti rotundi uteri." Von Dr. G. Leopold. (Separatabdruck aus dem *Archiv für Gynäkologie*.)

"Ueber den Scharlach in seiner Beziehung zum Gehörorgan." Von Alb. Burckhardt-Merian. (*Sammlung Klinischer Vorträge*, Nr. 182.)

"Ueber den Scheiden und Gebärmutter Vorfall." Von A. Martin. (*Sammlung Klinischer Vorträge*, Nrs. 183, 184.)

"Ueber die neuropathologische Bedeutung der Pupillenweite." Von E. Raehlmann. (*Sammlung Klinischer Vorträge*, Nr. 185.)

"The Treatment of Puerperal Fever by Intra-uterine Injections." By Edward W. Jenks, M.D., Chicago. (Reprint from Vol. IV. *American Gynecological Transactions*.)

"On Coccygodynia." By Edward W. Jenks, M.D., &c., Chicago. (Reprint from *Medical Record* of New York.)

"Ueber die Verwendung des Jodoforms bei gynäkologischen Leiden." Von A. Martin. (Separatabdruck aus dem *Centralblatt für Gynäkologie*.)

"Beitrag zur Therapie der Uterus Fibromyome." Von Dr. Hugo Burckhardt. (Separatabdruck aus der *Deutschen Medicinischen Wochenschrift*.)

"Kolpo-cystotomy by Electro-cautery, with Remarks on other Methods of Operating." By John Byrne, M.D., &c. (Reprint from Vol. IV. *American Gynecological Transactions*.)

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THE
OBSTETRICAL JOURNAL
OF
GREAT BRITAIN AND IRELAND.

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No. XCII.—OCTOBER 15, 1880.  
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Original Communications.

A THIRD CASE OF EXTRA-UTERINE GESTATION
TREATED BY ABDOMINAL SECTION.*

By LAWSON TAIT, F.R.C.S.

THE case I have now to submit to the Society differs from the two which I have previously narrated, in that the operation was performed before the death of the child, whose life was saved, and that the mother succumbed to the operation.

On January 23 I was asked by Mr. Walter Lattey, of Southam, to see with him Mrs. S——, aged thirty-three, whom he suspected to be suffering from extra-uterine pregnancy.

She had been married for fourteen years, and had had six children. The last menstruation occurred early in May, 1879, and since that time she had been in almost constant pain. Previous to May she was a strong, healthy woman, of good temper, but since then she had worn away, and her husband told us that her temper and manner had entirely changed.

In July a sudden attack of severe abdominal pain occurred, followed by a sharp illness. After her recovery from this, she applied to a physician, who treated her for uterine retroflexion, and fitted her with a pessary, which gave her intense pain. In October she became satisfied she was pregnant, and applied early in January to Mr. Lattey, that he might attend her in her confinement. About the middle of January her pain became

* Read before the Royal Medical and Chirurgical Society, May 11, 1880.

much more severe, and when Mr. Lattey examined her, he found such an unusual state of matters in the pelvis that he suspected the true nature of the case, and asked me to see her.

I found a large abdominal swelling, which was evidently a pregnancy. To the left of the umbilicus was a prominent mass rather larger than the closed fist, the centre of which coincided with the umbilical level. This was clearly the uterus, for the rhythmic contractions could be both seen and felt in it; and it was evidently attached to the larger mass of the swelling which lay behind it, extending to the right crest of the ilium. All over its front the placental souffle could be heard and almost felt; and above a ridge, which I regarded as the edge of the placenta, the limbs of the child could be felt, and the foetal heart heard.

The vagina was elongated, and the cervix could not be reached, but the head of the child was readily detected lying between the rectum and the vagina.

A few days after I saw her, the pain became agonizing, and she consented to come to Birmingham to have something done. I admitted her into hospital on the evening of the 29th, and ordered her stimulants and opiates. On the 30th, the sister informed me that opium seemed to have no influence in relieving her pain, and therefore I determined to operate next morning. For this I obtained the concurrence and assistance of my colleague, Dr. Savage.

On the morning of the 31st she was so much exhausted as to lead me to regret that the operation had not been performed a week earlier, but as the child was still alive, I had no hesitation in proceeding.

Ether was administered by the sister in charge, and I made the usual median incision. I came at once upon the empty uterus, and pushing that over to the left, I opened the cyst, which was in the right broad ligament, just above the uterus, and clear of the large placental sinuses. I came immediately upon the legs of the child, and removed it without difficulty. I then secured the edges of the opening in the cyst to the edges of the parietal wound, leaving a free opening for the future discharge of the placenta, and then carefully closed the peritoneal cavity.

The child was small, but evidently mature.

It was profoundly narcotised by the ether, and for hours its

breath smelt strongly of that substance. It is now (three weeks after its Cæsarean birth) thriving well.

The shock of the operation to the mother was so great that I feared she would not rally. It may be doubted if she ever did really rally, for though death did not take place till the fourth day after the operation, she was so entirely restless and uncontrollable, and there was so little other cause discernible for her death, that it might be regarded as death from protracted shock.

Dr. Saundby made a post-mortem examination, and found some morbid appearances in the liver, and ante-mortem clots in the heart, but no peritonitis. The pregnancy cyst was removed *en masse*, and on careful examination proved to be exactly what I had diagnosed it, the right broad ligament expanded into a cyst, with the placenta spread out on the anterior wall. In the empty uterus there was a well-marked deciduous lining in process of separation.

On the top of the cyst the Fallopian tube could be seen spread out, and when fresh it was evident that this tube had been ruptured at its lower aspect, the ovum thus escaping into the tissue of the broad ligament, separating its layers, and thus forming the cyst. This variety of extra-uterine gestation is what has been called by Deseimeris the "*sous péritonéo pelvienne*," and my views of its origin I have already expressed at length in my book on "Diseases of Women." The present case is one which fully confirms these, and also the opinion I have in the same place advanced, that all extra-uterine pregnancies are originally tubal, that the tube inevitably bursts between the eighth and twelfth weeks, the rupture in this case having probably occurred in July, when she had the illness; and that in those comparatively few cases where the rupture is not fatal, an extra-uterine pregnancy is completed, the variety being due solely to the direction in which the tube bursts.

In the present case the unfavourable result to the mother was, I believe, entirely due to the fact that we could not persuade her to have anything done till her chances of recovery were almost gone. The case is still of interest, on account of the success in saving the child.

It would have been quite as easy to remove the child by vaginal section, but I do not regret having adhered to my usual practice of operating through the linea alba. Large venous

sinuses spread over the cyst in every direction, injury to one of which would have been immediately fatal, and in vaginal section it is, of course, equally impossible to see what to avoid as it is to repair what has been damaged.

P.S.—August 5, 1880.—The child is still alive, and has grown into a fine, healthy and rather pretty infant.

CLINICAL EXPERIENCES OF PUERPERAL FEVER.

By A. D. LEITH NAPIER, M.D.

Fellow of the Obstetrical Society; Member of the Edinburgh Medico-Chirurgical Society, &c. &c.

(Continued from page 533.)

(12) PUERPERAL fever, in its epidemic or true form, is characterised by a wave in the severity of the cases, by its being more virulent to incomers to the infected district than to residents; and in certain other general points resembles diseases acknowledged to be zymotic.

In the hundreds of records of puerperal fever will be found confirmation of my assertion, that a wave of intensity accompanies the disease: at times (I need not uselessly cumber my space with quotations) the disease is so intense as to well deserve the epithet *foudroyant*, and like other terrible human scourges—*e.g.*, cholera—the number of persons attacked is not in direct ratio to the severity of the individual cases. My experience fully corroborates this. I am not aware of the next observation having been previously noted—*viz.*, the susceptibility of strangers on entering an infected district.

In Fraserburgh there was a peculiarly good opportunity of judging of this, as during the herring-fishing season there, large numbers of parturient women accompany their husbands, who come from all parts to fish, for a season of from six to eight weeks. They are lodged in the town, in some instances most unhealthily packed, but for the most part the married men are tolerably well off for accommodation; so that the crowding is not explanatory, as the ordinary residents who let their apartments are often worse provided for than their tenants. It was remarked that during the second outbreak of the fever, in the summer of 1875, the strangers who were attacked were, with two notable exceptions, more sharply seized, and, further, that a larger pro-

portion of them contracted the disease. It is a well-established fact, that certain diseases have their own epochs of advent; no one has been able to controvert the fact that the months of October and November are specially obnoxious to puerperal fever. As the question of etiology has yet to be dealt with, I will postpone the consideration of further similarities to general diseases meantime.

Let it then be granted that there is a fever of specific entity attending the puerperal condition; that, notwithstanding the absence of contagion from morbid sources, such as cadavera, or sloughy or erysipelatous wounds; that, apart from the evils of retained secundines, distinct from instrumental or other laceration; that, in the midst of comfort, cleanliness, pure air, and good nutrition, with placid and untroubled mental conditions, a fever, accompanied with more or less definite complications, may arise in parturient females. And that this is within my personal knowledge I can testify. We have then to determine various questions of a most pertinent nature:—What place does this disease occupy amongst general diseases? What phenomena attend its manifestation? What treatment is most successful? What dangers attend on it? What precautions are most advisable and imperative?

The different opinions regarding the pathology of puerperal fever may be enumerated under four classes:—(1) Those who hold that the existence of such a fever is mythical, that the febrile condition may arise from a multiplicity of causes—in fact, from almost any source—but that septicæmia, or manual transference of sepsin, causing direct contagion, is the most likely focus. (2) Others believe in a more closely defined theory, denying that the exanthemata will develop the fever, holding that if a puerperal woman is affected with, say scarlatina, though, owing to her peculiar condition, the disease may be more noxious, yet, that it will not constitute the special affection, but affirming that sepsin introduced into the maternal system, either autogenetically or heterogenetically, from any putrescent substance, is the sole origin. (3) A small number of observers, including, however, some eminent French names, such as that of Béhier, still hold the elsewhere exploded theory, that the disease is constituted by the original existence of a localised inflammation, and that this in most instances is eventually attended by secondary pyæmia. (4) The last class believe that there is a febrile condition of a special nature, which may accompany or follow the lying-in

condition ; that this fever is epidemic, or endemic, somewhat closely allied to erysipelas in its pathology, frequently typhoid in its development, and very often associated with inflammatory and septicæmic concomitants.

There is much to be admired in the very able arguments which have been advanced in support of the two theories first-named, more especially in regard to the second ; but when it is remembered that the greater proportion of the leading German and British obstetricians have embraced one or other of these views, this learned argumentation is inevitable. Yet, no insignificant number of able clinical workers are to be found supporting the fourth theory. With these last, admitting certain difficulties, the foregoing will show that I would signify my adherence.

It is neither within my scope or intention to criticise adverse opinions at length, but I may, in enunciating my reasons for the beliefs I hold, be permitted to demonstrate some of the more prominent fallacies contained therein. Supported by Professor Fordyce Barker, I hold that the definition given, in the nomenclature of diseases of the Royal College of Physicians, by Dr. Arthur Farre, is almost perfect. We say then, that there is such a disease as puerperal fever. If so, where shall we place it ? We cannot allow that it is septicæmia, or pyæmia, or erysipelas. We do not affirm that it is typhus or typhoid, we aver that it is distinct from the exanthemata. What then shall we call it ? Is it a local or a general disease ? What do those whose opinions we honour say of it ? So far as my reading goes, I have not met with one author of great repute, with the exception of Schröder, who adopts the views of Semmelweiss, who can wholly rid his mind of the idea that, besides auto-infection and hetero-infection by contagion, there is not, at least occasionally, an unexplained run of puerperal fever in certain districts. Professors Playfair, Leishman, Matthews Duncan, Drs. Roberts, of Manchester, and Alfred Meadows, of London, besides many others, have recently brought their varied talents to bear on this question ; yet no one of them has decidedly embraced these exclusive notions. Sir Thomas Watson has written regarding puerperal peritonitis thus : "*This form of peritonitis forms part of a disease which, like typhus fever, is a general disease.*"* This is the deliberate opinion of one of our most

* Lecture, "Principles and Practice of Physic," vol. i. p. 423.

cultured and highly discriminating authorities, and as such most fitting for quotation.

There is one disease to which I may be allowed to refer, as it presents not a few analogical resemblances. Diphtheria is, in the writings of Martin, of Berlin, Playfair, Fordyce, Barker, and Lusk, thus regarded; a reference to these authorities will well repay investigation. If we agree with Sir John Rose Cormack* that diphtheria is "a specific, contagious, asthenic disease," which "sometimes occurs as an epidemic," we have a definition of a disease which, so far as has been quoted, would place it side by side with puerperal fever. I do not claim any similarity in symptoms or precise nature, as Professor Martin has done, but merely use the definitions as illustrative or applicable to either disease. I have formerly mentioned a family resemblance, and would now add other points worthy of note. The resemblances of, interchangeability with, gradations into, or otherwise frequent existence of, diphtheria after scarlatina, and its then marked severity, is well known. No man at all interested in obstetrics can be ignorant of the excellent and voluminous writings of Drs. Braxton Hicks, Arthur Farre, Barnes, and others, anent the extreme danger of scarlatina in the puerperal condition. Formerly puerperal fever was regarded as a local disease, characterised by exudation of flaky, loosely-organised lymph, and that the local affection was attended by severe constitutional symptoms. Till quite recently, diphtheria was held to be situated in the larynx, to be manifested by a peculiar exudation of lymph-like membrane, and to be accompanied by marked asthenic symptoms. Now that diphtheria has, by the able observations of Cormack and many others, been more clearly understood, we know it as actually a general disease, the characteristic exudation of which occurs not only on the mouth and fauces, but on wounds, in the trachea, bronchi, nares, eyelids, vagina, &c. We also have come to recognise the significance of albuminuria in diphtheria.

Now in puerperal fever, despite the exemplary labours of Tonnellé—who examined 222 cases, and found a trace at least of one lesion in no less than 193—we are not quite agreed about the exact morbid anatomy. I do not think, except in this, there is any point in its epidemicity, endemicity, infectiousness, contagiousity, severe general or constitutional lesions, in which puerperal fever is less

* *Edinburgh Medical Journal*, March, 1876.

worthy of a habitat among general diseases than its more universally recognised cousin diphtheria.

We will not stickle for names : call it puerperal septicæmia if you will—perhaps in some respects the name is more appropriate ; but if so, we would crave a distinction between the septicæmia which may arise, after traumatic injury or otherwise, in any case, and THE septicæmia which at times commits such fearful ravages. If it be granted that this disease depends on more than infection, contagion, or autogenous causes, then, if you will, to escape certain difficulties, we will abandon the word *fever*. Yet if we so do, we may just as well call typhoid fever, erysipelas, and diphtheria, typhoid septicæmia, erysipelatous septicæmia, diphtheritic septicæmia. It may be that our understanding of these diseases would be better with a fresh nomenclature ; if so, let us have it by all means. After all, fever is but an empiric name ; yet we know what it implies, and is it necessary to change the names of our diseases to follow a fashion ?

Relative to this plea for its recognition as a specific disease may be mentioned the erysipelatous fever mentioned by Dr. Austin Flint.* This disease is so little known in this country that it requires such a name as Flint's to give it due import. Yet it seems to have been well known in America as an epidemic disease, and this during 1841-46 more especially. As we may have in erysipelatous fever the true interpretation of puerperal fever, I will cite one or two brief quotations from Dr. Flint thereanent. "A form of continued fever distinct from the fevers which have been considered (*i.e.*, typhus, typhoid, relapsing, &c.) is characterised by the frequent occurrence of erysipelas, and hence is called erysipelatous fever. As a distinct form or species of fever, this is to be distinguished from erysipelas occurring as a local affection and accompanied by more or less febrile movement. The fever in the latter is symptomatic, whereas in erysipelatous fever it is primary or essential. On the other hand, erysipelatous fever is to be distinguished from typhus, typhoid, and relapsing fever, with erysipelas as a complication. . . . It occurs as a sporadic and an epidemic disease. . . . It was not confined to a particular section, but prevailed in certain districts in New England, Middle, Western, and Southern States. The epidemic prevailed in isolated sections. It did not appear to migrate or be transported from place to place.

* "Principles and Practice of Medicine," third edition, p. 850, *et seq.*

Its course was irregular and erratic. Erysipelas was far from being constant. The frequency of its occurrence varied at different times and places. Dr. Bennet found it only in one-sixth of 150 cases. The disease was not infrequently complicated with inflammation of serous membranes, the pleura, peritoneum, and the cerebral meninges. Typhoid delirium and other ataxic symptoms occurred in some cases." And now comes what we who follow the very close analogy to childbed fever would expect.

"Puerperal peritonitis prevailed in conjunction with this epidemic so uniformly as to show a pathological relationship between these two affections. The opinion was generally held that the former was caused by a virus or miasm carried by the obstetrician from patients affected with the latter. Assuming this to be true in certain cases, puerperal peritonitis was by no means uniformly to be accounted for in this way. A rational explanation in many, if not in all cases, is that labour acted as an exciting cause, and determined the situation of the local affection in those predisposed to the disease from the action of the epidemic influence."

It is worth while considering a disease which has been dropped from our nomenclature since the days in which Dr. Blundell wrote. I refer to hidrotic fever. He, following the prevalent theory of his time, regarded puerperal fever as essentially peritonitis in the puerperal state, and has distinguished between the two diseases. Most excellently has he described the affection he calls hidrotic fever*:—"Although it sometimes commences before the birth of the child, delivery seems to be the great disposing cause. It occurs not only after delivery at the full period, but also after delivery in the earlier months, or even weeks, of gestation." He believed that the disease had some connection with the mammary secretion, with flooding, with the induction of premature labour, or the rude detachment of the secundines. Yet regarding the immediate cause he writes, "My mind is in doubt." We would regard these conditions aforementioned as being caused by the affection, and discriminate in his "ultra-malignant variety," "malignant variety" and "acute variety," different manifestations of one disease—puerperal fever; further, more than one illustration of the "lingering or fourth variety" has been given in my recorded cases. He has men-

* "Principles and Practice of Obstetric Medicine," by James Blundell, M.D., p. 598, *et seq.*

tioned the *ovarian* tenderness which is so frequently met with in the disease, and, taking his description all in all of the general symptoms, I question if a more accurate account of true puerperal fever will be found in the language. There is no confusion between weid and the more dangerous affection. I think it is to be regretted that so valuable a work is now, from the whirligig of time, permitted to drop from our classical authorities, and take this opportunity of recording my conviction that, in the hands of some competent editor, a most excellent addition to our libraries might be reconstructed by its being modernised.

Dr. John McIntosh, another bygone authority on puerperal fever previously referred to,* has strongly expressed his opinion that puerperal fever was a general disease. He had practised in the West Indies, and there had seen many cases of yellow fever; he had great experience of child-bed fever in Edinburgh during the epidemic of 1822, and remarked on the existent similarity between the diseases. One of his ideas regarding the latter affection was, that "after great heat a severe north wind seems to render the liability to the disease greater."

It is beyond my intention to do more than outline, so I will not dwell upon this one point longer, though much remains unsaid.

In considering the phenomena pertaining to the disease, the first thought that strikes us is, that we have a most confusing, if not difficult, task before us—not on account of scarcity of details from which to form deductions, but from the many, I may say vast, number of considerations involved. We are too often inclined to get bewildered in the mazes of theory, probably because we are not so clearly opinioned as we might be as to where we would be at. Not that I urge a blindfold determination to prove certain ideas of one's own or of others. Yet I do think we have oftentimes a strong temptation to loiter by the way, or branch off into new tracks in our pursuit of knowledge. I know no disease in which this faculty for innovation has been more germinating than child-bed fever. I have formerly briefly referred to that class of affections which follows traumatic injuries or septic infections, and endeavoured to draw distinction between such and puerperal fever, so that it is needless to revert to these. There is another class which is well described by Dr. Priestly, in the course of a most excellent address,† as "ephemeral." Suffice

* Pamphlet, *op. cit.*

† "Transactions of the Obstetrical Society of London," 1876, p. 44.

it to say we do not here purpose to treat of these. What I will attempt to delineate is the phenomena peculiar to epidemic puerperal fever. I do not care to enter into the endless and wearisome refinements regarding the variations of this disease. Many are whimsical, absurd, or fallacious. In Copland's "Dictionary" no less than fourteen different systems of classification, divided into forty-nine varieties, are enumerated. I reiterate, we will consider the phenomena as pertaining to one affection, which may be modified in different cases, owing to diverse lesions. We have considered the epidemic, endemic, the miasmatic, meteorological, and other influences. It is necessary, to elucidate my subject, that certain other generalities should be mentioned. To this end we will consider (a) What females are specially liable? (b) What influence traumatism bears to the disease? (c) What accidental circumstances favour the development of the fever?

(a) Nervous women are, *cæteris paribus*, the most liable. This has been asserted over and over again; from my personal experience I can fully corroborate it. Of my thirty-one recorded cases eighteen were "nervous," being either hysterical women, or primipara rendered exceedingly timorous by their approaching labour. Such being the case, and finding that ten of the eighteen died, I sought to determine a rational explanation of the circumstance.

I am not fully satisfied that I have found such, but offer my views for consideration. Uterine motions and sensations are for the most part regulated by means of impressions conveyed by sympathetic nerves derived from the inferior hypogastric plexus. Whether, according to William Hunter, Tiedemann, and Lee, these are enlarged, or if, as asserted by John Hunter and Beck, their size is unaltered in pregnancy, is immaterial for my argument. Suffice it to admit that exacerbated cerebral impressions, whether transmitted solely through these nerves or partially by ordinary efferent nerves, exert a considerable influence on involuntary muscular fibre, as is well exemplified in cardiac palpitation from emotion. In like manner will the depressing emotional sensation of fear cause perversion of the regulating nerve centres of the uterus. As a result of this impairment of centres, the vaso-motor nerves become perverted in action, the vessels become dilated, the absorptive functions are intensified, and sepsin in whatever form will be more readily imbibed. Again, be this explanation satisfactory or no, it is a well-known clinical fact that in certain severe constitutional diseases—*e.g.*, cholera—the

influence of fear of infection, or exaggerated apprehension of the termination, has a most prejudicial effect both in determining the initiation and result.

So far as my observation goes, the physical conformation or constitutional stamina is not of much import. Of course, the disease being once established, a strong healthy woman of good physique will resist this (as every like evil) better than one not so. Primiparæ are more obnoxious than multiparæ, partly from those nervous causes afore-mentioned, but also from traumatic injuries.

(b) Traumatism, with its attendant conditions of the raw state of parts, and shock, must be duly recognised. Severe, difficult labours, as giving rise both to great shock and lesions of parts, are likely to predispose fever. Of 31 cases, instrumentation was employed in 10. From this somewhat high percentage, it may be inferred that the use of forceps had not a little to do with the causation of fever. Yet in 6 others labour was exceedingly easy; in 2 other cases the children were born before any assistance could be obtained. Of the instrumental deliveries but three could be called difficult. Two occurred in my practice, the other was treated by Mr. Duncan. One of my cases was rendered difficult by narrowness of the transverse pelvic diameter and rigidity of the soft parts; the other, a brim case, was very difficult from the size of the fœtus, its malposition, and the high situation of the uterus in the abdominal cavity. But after all, traumatism is only likely as a factor when the disease is prevalent, as, from the writings of Snow Beck,* and more recently Matthews Duncan,† it appears that lesions of the maternal parts, especially in primiparæ, are much more frequent than was formerly supposed. So that were traumatic injury an excitant of the disease we should meet with it far more frequently than we do.

(c) The accidental circumstances which favour the manifestation of fever may be classed under those—(x) from mental disturbance as distinct from temporary mental excitement or hysteria; (y) from debilitating influences, as hæmorrhage; (z) from exposure to cold, errors in diet, hygienic surroundings, &c.

(x) It is advisable to distinguish between this and the class (a) formerly described. The latter is transient, common, and not difficult to understand; the former so peculiar that it deserves separate attention. As a sort of neutral zone may be mentioned

* *Medical Times and Gazette*, Feb. 23, 1856.

† *Edinburgh Medical Journal*, March, 1876, p. 828; and February, 1877, p. 673.

the peculiar liability of unmarried females. In these cases, in addition to the more common dread of the fulfilment of the curse attendant on the daughters of Eve, there hangs a heavy burden of shame, perhaps of remorse, of sorrow for their blighted fame, and mayhap for their blasted hopes of honourable wedlock. The young girl who has been seduced by some scoundrel under promise of marriage, and who finds out, when too late, that her betrayer is worthless and has been insincere, is by far the most likely victim.

But apart from these well-credited conditions, the neurotico-
puerperal state has a large share in the necessary considerations likely to originate fever. Dr. John A. Byrne* relates a case of puerperal fever with pulmonary abscess, and states that the mania which was developed in the course of the disease originated in blood poisoning. Hardy and McClintock's cases afford us with some examples: in one, fatal erysipelas after labour was ushered in by mania; in another, mania ushered in metritis; in another mania completely masked the existence of puerperal peritonitis. "Abdominal inflammation sometimes alternates with the alienation of reason." Dr. Tyler Smith also speaks of mania as occasionally masking uterine or peritoneal inflammation. Montgomery relates a case in which metritis and mania co-existed. Burns mentions the peculiar liability to this disease (mania) after delivery, and has also perspicuously pointed out "the great defection of mind" in malignant puerperal fever. Byrne's summing up seems very intelligent; he says of the co-existence: "It is no more than the effects produced upon the blood in the first instance, and then upon the nervous structures by other poisons."† In a book which is now, I dare say, little seen, but which contains many valuable observations, we find Dr. Robertson writing: "In many cases the mental excitement . . . was formerly mistaken for phrenitis . . . whereas the cerebral affection was probably in its nature essentially identical with the pseudo-peritonitis occasionally present at the same (puerperal) period."‡

Professor Gubler,§ writing on "Peritonism and its Rational Treatment," in the *Journal de Thérapeutique*, No. 20, 1876, and Nos. 2, 3, 4, 5, 6, 1877; concludes his memoir thus—"The serious complications of abdominal lesions attributed to peritonitis do not

* Reprint from *Dublin Quarterly Journal of Science*, August, 1866.

† Byrne, p. 10, *op. cit.*

‡ "Prevention and Treatment of Mental Disorders," p. 116, 117.

§ *London Medical Record*, November, 1877.

really belong to that phlegmasia. They are sometimes absent in the most intense inflammations, and sometimes appear without any notable inflammation of the serous membrane of abdomen.

“The course of symptoms superadded to traumatic or spontaneous lesions of the abdomen, consists of sympathetic or reflex disturbances of the great functions of circulation and hæmatisis. I have given it the name of peritonism so as to express its nervous character and to show its independent nature in relation to peritoneal phlegmasia. The contingent character of these accidents, the unenviable privilege of their possession inflicted on the human race, compared with the relative immunity of the animal species—all these circumstances combine to show that the development of peritonism is due to excessive impressionability, as well as to exaggerated reaction of the sympathetic nervous system in particular races or predisposed individuals. Hence it may be hoped, by diminishing this susceptibility and restraining the reflex action which results from it, patients may be placed in conditions favourable to the regular evolution of the local morbid process, without running the risk of the advent of general complications which frequently cannot be arrested.” He then urges the necessity of watching attentively the rise and progress of the abdominal localisation of general diseases and of primarily local affections, so as to intervene in time to prevent the development of sympathetic complications.

I have elsewhere* advanced an opinion, that in the puerperal state a form of mania is probably developed which is as much a result of blood poisoning as uræmia, cholæmia, and the delirium induced by rheumatic fever or erysipelas. Since then I have seen one or two cases which confirm my earlier ideas on the subject. One of the foregoing cases is illustrative of the co-existence of mental and uterine disturbance: certainly the fact that the patient had formerly exhibited a suicidal tendency at one time, invalidates to some degree the importance of this case, but the cessation of the general and local signs of the fever after mental quietude had been restored are very significant. I had occasion to see an undoubted case of puerperal mania in July, 1876, in which pelvic cellulitis speedily complicated the disease. As this was a most interesting case and has never been published, I may be permitted to sketch it very briefly, as illustrative of the close connection of the

* “Notes on Puerperal Fever,” p. 15.

physical and psychical systems in parturition. Labour on 29th June, was weak after; greatly terrified on 7th July, from which date lochia, which up till then had been abundant, were suddenly and entirely suppressed. She raved on night of 7th, improved on 8th. On 9th was very violent and unmanageable; refused food; was very noisy on 10th, on which day I saw her for the first time. She was very violent at times. Breasts empty; tenderness and enlargement in right ovarian region; scanty micturition. She was treated with chloral; and locally, poultice applied over ovary. She slept three hours after taking forty grains of chloral, and on the dose being repeated had other five hours' sleep. 12th June, was very restless and delirious, refusing food. Pulse irregular, 114; free diaphoresis; bromide of potas. was substituted for chloral. Visited again at 11.25 P.M.; pulse 120; rather more sensible; says her "right side is sore when pressed;" there was a dark-coloured offensive discharge per vaginam. On being requested to show her tongue she did so, saying "I never refuse to show Jesus my tongue." On 13th, pulse 110; skin moist; is insensible of abdominal tenderness; no tumidity. I did not see her again, but understood from the medical man in charge of the case that she got rapidly worse, having an evening pulse of 140, and died the night of the 14th of June. No post-mortem was made. I think we can postulate that there is undoubtedly a peculiar state of the nervous system predisposing to puerperal fever.

(y) That loss of blood, from its debilitating influence on the general system, should be a likely factor in the production of fever, few will be inclined to dispute. Yet, as illustrating the diversity of present from past opinions thereanent, we have it stated by Armstrong, Gordon, Campbell, &c., that hæmorrhage is a most potent preventive. The last-mentioned wrote that "no patient who had hæmorrhage had the true disease;" "only two had it at all, and in these it was greatly modified."

We find, in addition to these, that Denman, Leake, Hey, Macintosh, Jos. Clark, Blundell, Conquest, Gooch, Meigs, Lee, Dewees, Dugès, Tonnellè, &c., advised bleeding as most valuable—in fact, the most valuable treatment. Either the type of disease has since become modified, which is not unlikely, or these great men were biassed in their views of pathology by their seeming success in dealing with the malady.

Although it is not here advanced that bleeding, either during or after labour, will of itself produce the affection, it is easy to realise how the augmented shock and vital depression produced by it

may favour the absorption of morbid secretions, and thus pave the way for the development of actual disease. It is probably owing to this that during an epidemic premature labours are so liable to be followed by fever ; if, indeed, these are not oftentimes induced by ante-partum existence of the malady.

(*z*) Exposure to cold is not, in my opinion, so likely to originate fever as has been generally believed ; I have seen peritonitis and metritis seemingly caused by it, but as frequently apart from as with the specific disease. Errors in diet—*e.g.*, over-stimulating foods and drinks, or any derangement of the digestive system, are likely excitants. Bad drainage or ventilation, producing impure air, foul beds or clothing, crowding, close beds, and so forth, are undoubtedly to blame in many cases.

(To be continued.)

TWO CASES OF EXTRA-UTERINE FŒTATION.

By G. F. FULCHER, Burbage, Wilts.

FIRST CASE.—On July 10, 1872, I was summoned to the wife of a cottager living at some distance from my house. On arrival, I found the patient clearly suffering from the effects of violent hæmorrhage and complaining of excruciating pain in the abdomen, but on examining her per vaginam I could detect neither blood or other discharge. The uterus was enlarged and movable, the fundus tilted slightly backwards, the os fairly soft and within reach, and the cavity of the organ apparently empty.

The abdomen was enlarged and presented abnormal features. Diagnosing extra-uterine fœtation with rupture of cyst, I injected morphia and pursued the usual treatment for hæmorrhage, but the patient died some few hours after.

On a post-mortem section made three days afterwards, a fœtus of about five months was found lying in the abdomen, together with a detached placenta and a large quantity of blood, the placental attachment having been parietal. Both tubes intact.

The details given me were these : That the deceased had felt very queer for some months, had been obliged to relinquish all lifting of weights and heavy washing for hire, but had performed her own household duties. There had been frequent uterine hæmorrhage ; and about a week previous to death, after a walk

of some miles, bleeding had come on so copiously as to soak her stockings.

On the day of her death she had been at work from 6 A.M. to 8 A.M. (two hours), when she was seized with violent pain, faintness, and sickness, whilst drawing water from the well.

Micturition had been very difficult at times, and the bowels had been irregular. She was thirty-two years of age, and this was her third pregnancy.

SECOND CASE.—In June, 1879, I was engaged to attend Mrs. M—— in her confinement, which was expected in November or December. She was a fine, well-grown woman, thirty-two years of age, and this was her second pregnancy. She passed through the period of gestation with some disturbance of the digestive organs, but with no particularly abnormal symptoms, and her powers of locomotion were good until the beginning of December.

Late on Dec. 6 she sent for me on account of some sickness, diarrhœa, and abdominal pain. Next day the former symptoms were better, but the pain had become severe and paroxysmal.

On examination per vaginam I found a soft mass like the body of an enlarged and retroverted uterus, occupying the floor of the pelvis, but I could neither reach the os with the finger nor make out any presentation. Introducing the hand, I found the os pointing forwards and upwards towards the symphysis, the cervix too long, and the uterus, though enlarged, too small for the period assigned, and, so far as I could make out, its cavity empty. I could detect no influence of the pains, which were now of a most violent character; the fœtal heart was heard distinctly over the right side.

So violent were the pains, that, fearful of sudden mischief, I forbore further manipulation until I could command the presence of a colleague, whom I secured next day in Dr. J. B. Maurice, and then, after a thorough exploration, the uterine cavity was ascertained to be empty. It was decided to remove the patient to Savernake Hospital, there to perform gastrotomy under the spray, but some time elapsed ere we could obtain the consent of friends. The extreme violence of the pains and sickness combined with incidental circumstances to delay her removal until Dec. 16, at which time all disturbance had ceased. In this interval of eight days the pains and sickness were mitigated by subcutaneous injection. For three or four days after examination there had

been a thick, brown, fœtid discharge, accompanied by a rise of temperature and pulse. The fœtal heart was heard up to the 12th, and movement continued until the 14th. On December 15 peritonitis having set in, operative measures were abandoned, and she died Dec. 26. Dec. 25, post-mortem section revealed a very large child, 9½lbs. in weight, lying on its right side, its face buried in one iliac fossa, its body following the direction of the colon. The body of the placenta was attached over the broad ligament and left iliac fossa in a thickened mass, and then spread out over the abdominal wall with an attenuating margin until it terminated at the linea alba.

The bowels were pushed aside into either flank, and the general cavity filled with dark grumous fœtid fluid.

Remarks.—Whilst the first case, necessarily fatal under the circumstances, may merely go to swell the list of true ventral pregnancies, the second presents features of interest both clinical and otherwise—viz., the slight disturbance both to physical and vital functions caused by this enormous abnormality; the intimate adherence of the cyst to the surrounding parts enabling it to resist rupture, both from the vigorous struggles of the fœtus and the maternal efforts; and the part which the voluntary muscles take in endeavouring to procure the expulsion of the fœtus at the time of its maturation.

That gastrotomy should have been performed is probably certain, but from the size of the child it is equally certain that a fatal result would have ensued. It must be remembered that the success of the operation in these rare cases may be said to date from the period of the antiseptic spray, consequently the data are extremely meagre, and even these are not readily accessible to those at a distance.

A CASE OF VENTRAL EXTRA-UTERINE PREGNANCY.

By ABRAHAM FRANCIS, M.R.C.S. Eng., &c. &c.

Delaware, Ontario, Canada.

MRS. P., æt. twenty-five, a patient of mine for the last five years. Bilious temperament; married seven years, had two miscarriages before 1876, at which time she was delivered of a healthy child, natural labour; had one miscarriage since, about two years ago. She was subject to dyspepsia and leucorrhœa, but otherwise healthy.

October, 1879, she had an attack of peritonitis and colic, but by anti-phlogistic remedies, principally anodynes and fomentations, she got better in a few days. Catamenia regular to the present time. She commenced to notice a swelling in the right inguinal region. From this time she had otherwise tolerably good health until April 9, when a return of pain took place, but of greater violence, with which there was great tenderness of abdomen and constipation. She was bled from the arm, given a cathartic, and then treated with chloral, morphia, inhalation of chloroform, &c. After a few days, inflammatory symptoms subsided and the pain nearly left about the 16th, but the tenderness continued. From this period she gradually gained in strength and appetite and was able to be up and be about the house, and her bowels became regular, before this having been costive. The death of the foetus was believed to have taken place about the 17th, at which time Mrs. P. considered she had gone nine months. She did not feel the movements of the child after this date, her breasts dried up, her abdomen got less, and the child seemed to fall to the lowest side as she turned in bed. May 24, pains like labour came on and continued, regular but not strong, for twenty-four hours; they returned again on the 29th; on the 24th, the os externum was sufficiently dilated to admit my finger as far the os internum, the cervix was then about $1\frac{1}{2}$ -inch in length. From this date until the 30th, dilatation went on gradually until I was able to pass two fingers into the uterus and found it empty about $2\frac{1}{2}$ inches in depth. Hæmorrhage had been going on steadily all this week from the vagina, about equal in amount to her catamenial discharge. On the 28th, rigors commenced in the evening and continued until morning, followed by fever and perspiration, after which she remained cool. 30th: during the night vomiting and diarrhœa set in which much reduced her, and not being able to take much nourishment she sank and died on June 6. The position of the child could be well made out from external examination of the abdomen long before death.

Autopsy.—Twenty-four hours after death, upon opening the abdomen, we found the foetus lying diagonally; the head to the left and rather the lowest, back to front of mother, it was enveloped in a thin transparent membrane containing a nearly colourless fluid, through which the hair of head, left ear, back, and right hand could be seen; as it lay in situ it looked like a foetus of nine months. The cuticle separated only upon abdomen and a few other parts, bones of head and face quite loose; it was a well-developed

male weighing about seven pounds, cord about two feet long. The placenta lay across the pelvis just above the brim, having upon its under surface the bladder and uterus, upon its upper the fœtus. The right edge of placenta was firmly attached to the fimbriæ of the Fallopian tube and broad ligament of the right side for about two and a half inches. It had a nodulated appearance, thick compared to its width, two or two and a half inches thick, five inches in diameter, weighing about two and a half pounds, of a firmer texture than usual. The peritoneum presented dark gangrenous omentum adhering and easily broken down. The abdomen contained a quantity of dark grumous fluid—all the appearances of inflammation of long standing. The uterus, which was healthy, lay in the hollow of sacrum, os dilated to the size of about two inches diameter; the internal membrane rather congested.

The following points in the case seem to me worth particular attention :—

The catamenia returning regularly for the first three months and again returning on the 24th of May.

Inflammation coming on in the early stage of pregnancy.

Abdomen commenced enlarging upon the right side.

The fœtus distinctly felt through the parietes of abdomen.

Death of fœtus at ninth month.

Milk in breast to the same period and then disappearing.

Abdomen becoming less from the same period.

The state of os and cervix in last stage of pregnancy.

Notices and Reviews of Books.

Lessons in Gynecology. By William Goodell, A.M., M.D., Professor of Clinical Gynecology in the University of Pennsylvania, &c. With ninety-two Illustrations. London: Baillière, Tindall and Cox. 1880. Pp. 454.

ALTHOUGH there is much in this book about the truth or wisdom of which difference of opinion may properly exist, yet we think that even those who may be disposed to find most fault with the volume will admit it to be one of the most valuable contributions to the literature of practical gynecology that has been made for some time past. Dr. Goodell was previously well known in this

country as the author of various singularly able contributions to the branch of medical science which he practises. This work shows what we therefore should in some measure have expected—great knowledge and experience; fresh, vigorous, original thought; a power of seeing and making conspicuous that which is essential and distinctive, together with remarkable clearness of style and fertility of illustration.

The book consists of thirty-three lessons, in which most of the diseases peculiar to women are spoken of. The work is not complete, in the sense that every part of the subject is included in it. We would hope that perhaps in another volume Dr. Goodell may fill in those parts of the field which he has here left untouched. Being intended for learners, these lessons have not been written to demonstrate or set forth that which is novel; their merit and originality consist in the clear and luminous manner in which well-established pathological and clinical facts, and the author's opinions upon controverted topics, are set before the reader.

Dr. Goodell, indeed, sometimes seems as if he preferred to be impressive rather than strictly accurate. He uses descriptive phrases which are manifest exaggerations, if taken literally—*e.g.*, describing a patient as being nothing but skin and bones; and makes sweeping statements as to the value of remedies—for instance he tells us that when he can get a patient with uterine disease to take cod-liver oil and iodide of iron, he feels that half the battle is won. Although this style of writing may be adapted to the end sought, and may be justified by colloquial usage, yet it is unscientific; and to use such language is to set a bad example.

In looking through the book it is perhaps natural that we should turn first to the question at present most warmly controverted—*viz.*, that of uterine displacements. Upon this point the author expresses himself vigorously, but not clearly.

At p. 47 he thus expresses himself: "I believe ante flexion to be the natural condition of the womb in virginity and in sterility." At p. 35, in narrating a case, the author says, "I . . . finally, I am ashamed to confess, straightened out a somewhat ante flexed womb." At p. 399, a "virginal ante flexion" is spoken of as being a matter of course. He is even more definite at p. 144, where he states, "Hysteria is pre-eminently a disease of the unmarried, of the newly married, and of the sterile. But, since in them the womb is naturally ante flexed and anteverted, so this physiological

condition is liable to be mistaken for a pathological one, and to be treated accordingly—that is to say, maltreated. The diagnosis, therefore, is not always clear ; but, when dysmenorrhœa is present, when the womb is markedly tender, or is congested, or when it exhibits other unmistakable objective evidences of disease—when, in addition, the marriage is an unfruitful one—then may the hysterical and other subjective symptoms be intelligently referred to the uterus proper as the primal cause. Yet my experience would lead me to say that very few cases of forward displacement of the womb need any local treatment whatever, because the uterine symptoms are usually mere mimicries.” One would not infer from these quotations that when dysmenorrhœa, tenderness, or congestion of the womb, coexist with flexion, that the author therefore holds these changes to be caused by the flexion. With them in our memory, we read with some surprise (p. 161), “I now hold that there are certain stubborn cases of ante flexion, and, for the matter of that, of retro flexion too, which can be satisfactorily treated in no other way than by this stem. Not a month now passes without finding one or more of my patients under its use.” The stem pessary is an instrument as to which we are in the unfortunate position of having no complete and accurate information as to its effects, curative and other. We know that a great many able men have seen much apparent benefit follow its use ; we know also that it has caused a good many deaths, and a good deal of serious illness, and has often proved utterly useless. But what is the death-rate, what the risk of peritonitis, what the percentage of cures, no one knows. Dr. Goodell mentions that he has seen perimetritis from its use (p. 160) and that “they usually irritate the endometrium more or less” (p. 164). He does not mention that the instrument has frequently caused death, an omission which, as the recollection of this fact very materially influences the judgment of the gynecologist as to the propriety of its use, we think a very important one. The question also arises, if ante flexion is a natural condition, and the uterine symptoms associated with it generally “mere mimicries,” how are we to be in a given case sufficiently certain that the uterine symptoms depend upon an ante flexed condition of the womb, to justify us in submitting the patient to the risk which attends the wearing of a stem pessary? To this question we can find no clear and definite answer in Dr. Goodell’s book.

Among the parts of the book which seem to us most valuable, we would instance the excellent remarks he makes on the practice of supporting the perineum. He regards the diversity of opinion upon the mode of giving (or omitting) this support as an indication that "Nature herself intends to take care of the perineum . . . and that she can very generally do it better than a physician." Then he says, "But supposing that the case is a morbid one, and really needs help; or else, that you cannot, for the life of you, keep your hands off—what is to be done? Why, imitate Nature. She retards the too rapidly advancing head, and that by making the woman cry out—which at once stops the expulsive pains. You will retard the head by making direct pressure, *direct pressure*, I say, on it" (p. 94).

At p. 168 we find two statements which rather surprise us. One is, that an elastic ring is more liable to do harm than any other kind of pessary. We should have thought it one of the safest kinds. We are also told that the lever pessary "often rubs off the epithelium behind the cervix. . . . Such an abrasion usually gives warning by a peculiar reflex pain in the back of the head and in the nape of the neck." This is to us quite a new observation. The author objects to the cup and stem pessaries, on the ground of their expense. Here in England they are among the cheapest.

The author offers an explanation, which we do not remember to have seen elsewhere, of the fact that in hypertrophic elongation of the supra-vaginal cervix, the limit of five inches, as the length of the uterine cavity, is rarely exceeded. The limit is "attributable to the resistance to any further elongation and descent by the anterior wall of the vagina, which measures about two and a half inches in length."

The chapter on Laceration of the Cervix Uteri opens with some admirable remarks on the harm done by the too early breaking of the bag of membranes. Dr. Goodell, like Emmett, attaches great importance to these lacerations. He says that he has seen profuse menorrhagia, leucorrhœa, cervical and corporeal hyperplasia, chronic ovaritis, and every kind of prolapse, spring from such lacerations: he also believes that they cause sterility. But he guards himself by saying, "Let me not convey the impression that every woman who has an ununited rent of the cervix is doomed to sterility or to hopeless invalidism. Far from it: there are those who seem as unconscious of all ill effects from such a

lesion as some few healthy women who carry retroverted or retroflexed wombs. One lady I know, who has borne several children, and is still bearing, although her cervix was split in two at her first labour " (p. 214). The description of the operation is full and clear. We think it has yet to find its true therapeutical position. That it has not met with the same warm reception in this country as in America, is due perhaps to the over-sanguine statements of its advocates in that country.

Lesson XXI., on Vegetations of the Endometrium, is an exceedingly valuable one, dealing with a class of cases which are not very uncommon, about which there is still much to be learnt, and which are only incidentally referred to in most books.

One direction in which this book goes beyond any preceding work on the subject with which we are acquainted, is the extreme importance which is attached to the sexual act as a cause of disease. There is scarcely a chapter in which the subject is not referred to ; and the last lesson is devoted to "conjugal onanism and kindred sins." Although we think all will admit that the subject, when introduced, is treated with the greatest good taste, yet we expect opinions will differ as to whether it is likely (for not only does Dr. Goodell adduce no proof of his views, but it is scarcely possible to get any evidence either for or against them) that his opinions are correct.

The book is, in short, one which every one who practises gynecology ought to read ; and which no one, whether he agree with its teaching or not, can peruse without interest and profit.

Abstracts of Societies' Proceedings.

OBSTETRICAL SOCIETY OF DUBLIN.

Meeting, Saturday, March 6, 1880.

E. B. SINCLAIR, A.M., M.D. *President, in the Chair.*

Craniotomy and its Alternatives—Cæsarean Section, Laparo-Elytrotomy, and Porro's Operation.

By R. J. KINKEAD, A.B., M.D., Dublin,

Professor of Obstetrics, Queen's College, Galway ; Examiner in Obstetrics, Q.U.I. ;
Surgeon to H.M. Prison, Galway, &c.

CRANIOTOMY.

THAT it should be necessary to recognize or sanction an operation so revolting, and having for its object the destruction of human life, although it be undertaken with a view of saving the life of another, is a reproach to surgery, and one which modern science ought strenuously to strive to take away.

To see if this can be effected it is necessary to investigate the grounds upon which craniotomy is justified, its statistical aspect, and its alternatives.

The teaching of the British school has been most emphatic—that where a living child cannot be extracted entire *per vias naturales*, its destruction and mutilation are justifiable, and that the safety of the mother is always to be preferred to that of the child.

Most authorities, whilst justifying the operation, confess—what is to be expected as the result of such decided teaching—that it is performed where there is no real necessity for it.

From this teaching a terrible result too often follows. Attempts to perforate and extract in extremely narrow pelves are made ; extraction being found impossible, no option is left but either to operate on the mother, or let her die undelivered. Perhaps the latter course would then indeed be wisest, for her prospect of recovery after prolonged efforts to deliver by the crotchet or cephalotribe would be very slight indeed.

If the child's life were, in its essence, something different before birth from what it is after—if, whilst in its mother's womb, it had

no separate existence—if it were merely a portion of its mother, and not a separate, distinct individual—if it were “a mere vegetative life”—then indeed the doctrine “that embryotomy stands first, and must be adopted in every case where it can be carried out without injury to the mother,” or “with a reasonable prospect of safety to the mother,”* would be established on a firm and unassailable basis, and we need have no more hesitation in removing the child, than we have in cutting off a leg or amputating a breast. But the case is widely different. Before birth the child is just as much a living, distinct individuality as it is after. It has as perfect a right to its life as its mother has to hers. We are equally bound to save its life if we can, and we ought not only to dare, but it is our bounden duty, to put its life—“that of an unborn child—into the scale against that of a being, like ourselves, accountable to the Almighty.”

“In fact, it ought to be deeply impressed upon every practitioner that he who destroys the child without due evidence that this is his only resource for saving the mother, is guilty of murder.”†

I do not mean to argue that, with our present knowledge and experience, craniotomy is in every case unjustifiable.

I admit that there are cases in which it is justifiable to take away human life; but it appears to me that the question of the value of one life over that of another cannot be entertained.

In the case of a woman in labour, with pelvic obstruction, we have two human beings, innocent, yet as it were struggling with one another; unless aid is given, and that speedily, both will die; to all intents and purposes they will kill each other.

Our plain duty is to save one of the two so endangered, if we cannot rescue both.

The rule for our guidance being that, if we cannot save both, we are bound to save one, it follows that craniotomy, being necessarily fatal, should never be performed unless we are assured that with reasonable skill in its performance the mother's life will be spared, that we do not expose her from the operation to equal peril with that resulting from gastro-hysterotomy; and on the other hand, the Cæsarean section ought not to be undertaken unless we are assured that the child is alive, or, if dead, that it would be impossible to deliver it by any means *per vias naturales*,

* Barnes' “Obstetric Operations,” third edition, p. 419.

† Churchill, *op. cit.*, p. 174.

or that the effort to do so would place the mother in greater danger.

The smallest diameters admitting of the extraction of a dismembered fœtus are laid down by

	Inches.		Inches.
Campbell as	3×2	Churchill as . .	$3 \times 1\frac{1}{2}$
Dewees . .	$3\frac{1}{2} \times 2$	Ramsbotham . .	$3 \times 1\frac{1}{2}$
Bedford . .	$3\frac{1}{2} \times 2$	Playfair . . .	$3 \times 1\frac{1}{2}$
Burns . .	$3 \times 1\frac{3}{4}$	Osborne . . .	$3 \times 1\frac{1}{2}$
Barlow . .	$3 \times 1\frac{1}{2}$	Barnes from	$3 \times 1\frac{3}{4}$ to 1
Hamilton . .	$3 \times 1\frac{1}{2}$		

The limitation of capacity depends on the safety of the mother ; not merely the probability of it, but the assurance that by reason of the operation not only will her life not be lost, but, further, that it will not be placed in as dangerous a condition as if the Cæsarean section had been performed. That it can be accomplished with this assured safety in such low pelvic diameters some assert, others deny.

And, first, the objection, that it is very difficult, if not “ impossible, to ascertain with mathematical accuracy the precise measurement of an extremely contracted pelvic brim, in which a mistake of a very small fractional diminution would render the extraction of the base of a full-sized head quite impossible,”* has real weight ; for, although it has been argued that this tells as much against Cæsarean section as against craniotomy—“ for, if we cannot determine in a given case that a pelvis is under two inches, how are we justified upon a mere conjecture in subjecting the woman to so terrible an operation, when probably she might be saved by craniotomy ”†—yet the answer is plain—How, under such circumstances, are we justified in taking the infant’s life, when probably the woman cannot be saved by craniotomy ?

Again, we have no means of judging before birth what is the sex and size of the infant ; and whereas it might be possible to extract, with safety to the mother, a female or ordinary-sized child, it might be impossible to extract one at all if above the average, or only after such prolonged and violent efforts as would place the mother in imminent peril. Are we justified in killing the child on the chance of its being small ?

* Radford, *Medical Times and Gazette*, Jan. 16, 1869.

† Barnes, *ibid.*, Jan. 9, 1869.

Another view must also be taken. Dr. Barnes says :—" Obviously we cannot recognize fatal cases of craniotomy in extreme deformity, say of conjugate diameter reduced to two inches or to 1·75 inches, unless the operation was begun under selected circumstances—that is, before exhaustion had set in—and conducted with due skill and after the most improved methods. We are fairly called upon to reject all fatal cases in which craniotomy was performed with bad instruments, in which the skull was either not crushed down by the cephalotribe or the calvarium not removed, so as to leave nothing but the base to bring through the brim, edge on, or the head and trunk not reduced by sections as by my method ;"* but this simply means that all fatal cases are to be rejected unless performed by experts. Before arriving at the conditions here specified, how many children are to be sacrificed, how many mothers lost? We want a rule; we require guidance, not for such a master of his art as Dr. Barnes, but for the general practitioner.

But even with the specialist, to extract an infant through a low pelvic diameter is no easy task, and too often proves fatal to the mother. (Cases were then quoted in illustration.)

Unfortunately the question cannot be decided without statistics, which are sadly imperfect both in quantity and quality.

The average maternal mortality in Cæsarean cases is given as 1 in $2\frac{1}{2}$, in craniotomy as 1 in 5; but when we analyze these cases, and divide them into classes, according to time and cause, we obtain very different results. Thus, in Collins's cases the average of 1 in 5 obtained; but of these where labour had lasted more than forty-eight hours it rose to 1 in 3; and if his forceps cases be added, the maternal mortality, after a similar lapse of time, rose to 1 in $2\frac{1}{2}$; thus reaching the level of Cæsarean cases. Johnston and Sinclair publish the results of craniotomy in 130 cases; of these 26, or 1 in 5, died. It is curious that here the rule of the increase of mortality with the duration of labour does not hold good. There were 26 cases in which labour lasted forty-eight hours and more; of these 4 died, or 1 in $6\frac{1}{2}$.

But we have much later and more valuable statistics collected by the late Dr. Parry, of Philadelphia, who shows that, in 70 cases where the conjugate was $2\frac{1}{2}$ inches, or less, the maternal deaths amounted to 26, or about 1 in $2\frac{1}{2}$, or 37·14 per cent.,

* Barnes' "Obstetric Operations," third edition, p. 418.

which is almost as great as that resulting from the Cæsarean section in America or on the continent of Europe. That this mortality was not due to unskilfulness is shown by the fact that nearly all of these cases were under the care of obstetricians of well-known reputation, amongst whom were Barnes, Dubois, Braxton Hicks, Greenhalgh, Radford, Meigs, Fordyce Barker, &c.

Hitherto I have only considered the mortality of craniotomy in contracted pelves. It has, however, to be resorted to in other cases.

In carcinoma of the cervix uteri or vagina the woman's days are numbered; she is suffering from a disease which in a short time must put an end to her existence, "whilst the child, if saved, and not sacrificed, may possibly" (nay, probably) "grow up and become a useful and important member of society. Under such circumstances we are assuredly justified in saving the life of the child, even were it at the expense of some additional risk to the mother."* On the other hand, it has been stated that "we have no right to lessen the woman's chance of life, because it is already small."† This would be quite true if we had not to deal with the question of the child's right to live. Craniotomy in such cases places the woman's life in extreme peril. We are not, therefore, justified in sacrificing a healthy life on the chance of saving a failing one.

From what we know as to the danger arising from pressure in labour complicated by pelvic, uterine, and ovarian tumours, it is evident, unless in the case of very small tumours, and those capable of being enucleated, or emptied of their contents, that, even after the reduction of the bulk of the head, they must be subjected to very dangerous pressure. "Unlike most cases of bony deformity the diminution of the pelvic canal is not limited to one diameter, but the tumour generally obstructs all the measurements of the pelvis, the lateral as well as the antero-posterior; hence there is usually very great difficulty in performing the operation, and in breaking down the head sufficiently to admit of its passage. This difficulty is alluded to by several authors."‡ A most interesting case is recorded by Playfair.

Statistics of the results of labour, complicated with ovarian and other pelvic tumours, have been collected by Dr. Playfair and

* Simpson, *op. cit.*, p. 649.

† Barnes, *op. cit.*, p. 421.

‡ Playfair, "Obstetrical Transactions," vol. ix. p. 74.

and Professor A. Stadfeldt, and the study of them will give, not only the results to be expected, but an indication for treatment.

The figures bring out very decidedly two facts:—1st, that in ovarian cases the procrastination practice is little less than criminal neglect, and that to wait for the death of the child before operating, or to postpone treatment hoping for the natural powers to expel the child, is to subject the mother to risks far greater than those attending gastrotomy; and, 2nd, that the mortality attending craniotomy and turning is also appallingly high, and, when the necessary destruction of the child is taken in account, it is unjustifiable.

In some of these cases a double line of treatment was adopted, such as puncturing or pushing the tumour above the brim. Eliminating these, there were ten cases of craniotomy pure and simple, with a mortality of 60 per cent.

From Professor Stadfeldt's figures it appears that the highest death-rate, as regards the mothers, was when the cases were left to Nature, next in the Cæsarean operation, and next in craniotomy; whilst the lowest foetal mortality was in the Cæsarean cases.

With regard to the maternal mortality in carcinoma of the uterus, a number of cases has been collected and analyzed by Dr. G. Ernest Herman, which also proves the fatality of craniotomy in such cases.

The high maternal mortality following craniotomy in extreme pelvic obstruction having been demonstrated, it remains for us to consider the substitutes for it, the mortality which has attended them, and whether that mortality is inherent in them, or due to other causes.

The alternatives which have been proposed are—symphysectomy, Cæsarean section, laparo-elytrotomy, and hystero-ectomy, or Porro's operation.

CÆSAREAN SECTION.

The first place must be given to the Cæsarean section, not merely from its antiquity, but because, no matter how valuable experience may prove laparo-elytrotomy and Porro's operation to be, their range is limited, and the Cæsarean operation must be performed where they are not available.

That the maternal mortality after Cæsarean section has been very great, especially in England, is an admitted fact, and the

wonder is, not that so few have escaped, but that so many have survived.

The sources of danger are—1. Peritonitis; 2. Hæmorrhage; 3. Shock; 4. Septicæmia; 5. Incarceration of intestines. There is no cause to which death is more frequently attributed than to peritonitis. Thus from it Harris records sixteen deaths out of thirty-seven, and Keyser seventy-seven out of one hundred and twenty-three. As its occurrence is much more frequent than after ovariectomy, where, when adhesions exist, much more injury is inflicted on the peritoneum, it must be occasioned by something more than the incision. The cause is found in the escape of blood, lochia, or other discharge, and, above all, in long-continued labour. Of course cases will be met with where the health of the patient is broken down, but similar cases turn out badly in all operations.

The incision in the uterus has been assumed to be a cause of peritonitis, and doubtless this is the case when the uterus has been bruised and injured by long-continued efforts to drive or drag the child through a contracted pelvis. Injuries are occasioned by compression of the uterine tissue between the head and pelvic bones, and, when the liquor amnii has drained away, by pressure on the body of the infant. Furthermore, as a result of long-continued labour, the uterine tissue undergoes structural change; in some cases it is reported as being almost gangrenous. It is not to be wondered at, then, that the wound in it should not heal kindly, that it should become unhealthy, and that from it inflammation of a low type, probably septic, should be communicated to the peritoneum.

The danger from hæmorrhage was one of the principal reasons urged against the operation by older writers. Modern authorities are not at one on the subject. The weight of opinion seems to be that it has been overrated.

If the uterus contracts well and tonically there will be no hæmorrhage, either at the time of or after the operation, and there will be no need of sutures. It takes place only in those cases where the uterus either does not contract, or having done so relaxes again.

This danger can be combated by ergot, ice, perchloride of iron, and the other means we adopt to secure uterine contraction; but "to avoid uterine inertia or complete atony and an unfavourable closure of the incision in the uterus, an early and, if possible, an elective operation should be performed."*

* Harris, *op. cit.*, April, 1878, p. 320.

Hæmorrhage from cutting down on the placental site can be avoided, or controlled by rapidly detaching the placenta and emptying the womb.

The great danger of septic infection has been fully recognized by authors. It is, however, extremely probable that many of the deaths attributed to shock, peritonitis, or even to secondary hæmorrhage are, in truth, due to blood-poisoning.

Whilst from the nature of the case the danger of septic poisoning after the Cæsarean section is clear, the prophylactic means to be adopted appear equally plain. The first place in this respect, as in everything connected with this operation, must be given to a timely operation.

The peritoneum being a great lymph sac, a continuous sheet, as it were, of the mouths of lymph ducts, although tolerant of rough handling and injury, is most intolerant of decomposing animal matter. If experience has taught any lesson more clearly than another it is this, that in operations engaging the peritoneum, all blood and discharge must be removed with the greatest care at the time of operating, and free exit must be given to any fluid which may collect afterwards.

The removal of blood and liquor amnii (if any has been allowed to enter the abdomen) at the time of operation is easily effected. To prevent its being poured out afterwards is a much more difficult matter. To secure this it is essential that the edges of the uterine wound should be brought into, and kept in, apposition, so that not only no fluid should escape through the wound into the peritoneal cavity, but also that septic infection may not take place through them, that they themselves remaining ununited may not become unhealthy or gangrenous, and so supply septic matter for absorption. This indication is met by timely operation.

Failing to secure permanent contraction, it is necessary to take other steps—1. The closure of the wound by sutures. 2. The removal of effused fluid as rapidly as it is poured out.

The question of sutures is a vexed one. It is held by some that if the uterus contracts well they are not required ; if it does not they are useless ; that it is dangerous to sew up an organ like the uterus, which expands and contracts, and is irritable under the presence of a foreign body ; that the incision will gape between the stitches, and that if left in the abdominal cavity they are foci of irritation likely to culminate in inflammation.

If the uterus contracts tonically it is quite true that sutures are

not needed. But in complete uterine inertia there is no other resource, not merely to guard against the effusion of fluid into the peritoneum, but to restrain bleeding from the incision. In such cases well applied sutures have before now apparently saved life.

In those cases where partial relaxation and contraction occur, and in which sutures are said to be dangerous or useless, because they will either be torn out, or the wound will gape between them, careful attention to two points will remove the objection.

After normal labour tonic contraction does not immediately set in; the womb contracts and relaxes rhythmically, as it did during pregnancy and labour, but when it relaxes it does not get larger—it goes through a sort of squeezing process, expelling the fluid portions of the coagula. After a time it becomes quiescent, and the mistake generally made is closing the abdominal wound too soon. This ought not to be done, nor ought sutures, save in cases of bleeding from the incision, be introduced until this process has ceased.

The wound can be perfectly closed, so that it cannot open, the suture removed when its work is done, and a certain amount of drainage provided for, by the following method:—A long suture is armed with a needle at each end. Commencing at the upper angle of the wound, a needle should be passed from within outwards on each side of the incision at the level, or a little above it, of the termination of the incision. The suture is now drawn until its centre is in the middle line. The right-hand needle is then passed through the left, and the left-hand needle through the right side of the uterus, about half-inch from the edge of the wound from without inwards, and so on from within outwards and without inwards until the entire wound is closed, taking care that the needles pierce the uterine tissue exactly opposite each other, and that the distance between the points inside the uterus should be less than that on the exterior. When the lower angle is reached one end should be drawn through the os uteri and vagina, which can easily be done by a loop of silver wire, tubular needle, or catheter, and the other through the lower angle of the abdominal wound.

There being no knots, carbolized gut can be used and allowed to remain until the entire portion is absorbed, and the ends drop off.

The second indication of providing a free exit for discharges should not be overlooked. Drainage and antiseptic irrigation

have proved of signal service in abdominal operations. The natural channel for escape of lochia is through the os uteri. If this is kept open, and firm contraction has been established, and the lips of the wound retained in apposition, there will be no escape of discharge into the abdomen, as the contents of the uterus will find their way through the opening which offers least resistance ; clots not being formed, there will be no uterine effort to force out its contents. But as it will not always be possible to secure this favourable condition, drainage by artificial means becomes advisable.

In ovariectomy, if symptoms of septic poisoning show themselves, there is no hesitation in opening the lower portion of the wound and giving exit to decomposing fluid. Glass drainage tubes have been inserted, and the cavity washed out with antiseptics. There is no reason why this should not be done with equal success after the Cæsarean section, and there is more need for it, for in it there is a source of continuous infection.

That after such an operation shock should be a source of danger appears self-evident. Yet experience does not prove this to be as great as would *à priori* have been imagined.

The general health of most of the patients is, and the power of rallying after the shock of the operation ought to be, superior to that of ovariectomy cases. It is in cases exhausted by tedious labour, and perhaps fruitless efforts to extract the child, that shock might be expected to act most fatally ; yet, comparatively speaking, how few are the cases where death actually results from this cause. Thus, out of Harris's cases there are only fifteen attributed to shock or exhaustion.

If a further analysis of recorded cases is made, it will be seen that exhaustion prior to operation has obtained in most of the cases where death was attributed to shock. It is, therefore, unfair and misleading to attribute to the operation an effect which does not properly result from it.

Thus it appears that there is nothing in the operation itself which care, antiseptic precautions, and the knowledge which modern abdominal surgery has taught us, should not enable us successfully to grapple with.

The causes, then, of the enormous mortality hitherto recorded must be sought for outside the operation. It may be due to circumstances antecedent to, or independent of, labour—such as mal-nutrition, grave organic disease, or bad habits of life. But,

however these may influence the results in some cases, there can be little doubt that delay in operating is the prime factor of the mortality.

Testimony to the fatal effects of procrastination is borne by Playfair, Barnes, Harris, Stadfeldt, and others. The enormous importance of early operation will be more clearly seen from an examination of the recorded cases, and will show—so far from being “necessarily almost a forlorn hope,” almost certainly fatal—that the Cæsarean section, when properly performed, before symptoms of exhaustion have set in, has a comparatively low mortality, and is absolutely more favourable to the mother than craniotomy.

In the cases which I have collected and tabulated there were 9 operated on within twenty-four hours of labour coming on. Of these, 3 died and 6 recovered; but out of the 3 deaths we find 1 was a case in which labour was induced a fortnight before term, and another was a subject of cancerous tumour of the recto-vaginal septum. Eliminating these 2 cases, in the former of which an operation prior to the Cæsarean section was undergone, we have 7 cases with 6 recoveries, or 85 per cent.

In the cases recorded by Dr. Harris in the *American Journal of Medical Science* for April and July, 1878, and January, 1879, we find that there were 24 cases in which the operation was performed early, before the lapse of twenty-four hours. Of these, 6 died and 18 were saved, or 75 per cent.

M. Pehan-Dufeillay has also shown that of cases operated on early, and before the strength was exhausted, 81 per cent. recovered.

The most remarkable feature in all English and American records is the few cases in which an early operation has been resorted to. Thus, out of 103 recorded by Harris we find only 24, in those by Radford 20, and in the 32 which I have collected only 9.

The time when to operate cannot be decided by hours, for although for statistical work a limit of hours which have passed since labour set in must be taken, yet the rule ought to be, not that the operation should be performed before so many hours have elapsed, but before symptoms of exhaustion have set in.

It has been recommended to induce labour, and operate before term, in order to avoid the degeneration of uterine tissue that

follows delivery. But I believe nothing is gained by this course.

I have tabulated 32 cases which I have collected from various journals; these are all the cases, both favourable and unfavourable, which I could find.

Out of the 32 cases collected 12 mothers were saved; of these 6 were from those operated on in the first twenty-four hours of labour; 18 children were born alive, or 56·2 per cent.; 12 children were dead before operation, or 37·8 per cent.; and of 2 there is no report.

With regard to the use of uterine sutures, I find that in 14 cases where they were used 4 recovered and 10 died. The number used varied from 16 in one case to 1 in another. The materials used were silver wire, fishing gut, carbolized gut, silk, and iron wire. In some cases the patient was obviously moribund, and in one she died on the table. It is impossible, therefore, to draw from the records any conclusion as to the advisability of suturing the uterus or not, though in some cases they seem to have been decidedly beneficial; and it would appear that, if sutures are used at all, a sufficient number to secure closure of the uterine wound ought to be inserted.

Adding the 32 cases which I have collected to the 100 recorded by Dr. Harris, we find that out of 132 operations 56 mothers were saved, or 42·4 per cent.

There were 32 timely operations; of these 24 mothers, or 75 per cent., were saved.

In 100 cases the operation was delayed from periods varying from over twenty-four hours to seven days, and only 32 per cent. recovered. No stronger argument in favour of early operation, or against the folly of deferring interference, could be produced than placing these figures, indicating the different results, side by side.

In most of the cases chloroform was used; in some, ether; in one at least, ether spray; and in a very few, no anæsthetic. It appears, however, to me that it is a very doubtful question if anæsthetics ought to be used. Vomiting, always distressing, sometimes uncontrollable, frequently occurs after operations on the abdominal cavity; and the use of chloroform or ether is generally followed by this distressing affection. In these cases it is sure to aggravate the tendency, and so cause serious injury. On the other hand, the pain of the operation without an anæsthetic does not seem much. It has been described as not so severe as the pangs of

labour itself—the most painful portion being the incising the skin and the introducing of the abdominal sutures, whilst the uterine incision seems to be accompanied with little, if any, suffering. Ether spray, if merely applied during the cutaneous incision, has not the disadvantage of inhaled anæsthetics; but it is doubtful if the pain of the freezing is not as acute as that which results from the knife; and at night ether would be very dangerous, owing to its highly inflammable nature.

Although the treatment which is best for the child ought to have weight in deciding what ought to be done, yet the merits of the Cæsarean section as an alternative of craniotomy will be generally judged with regard to its results in saving the mothers.

The mortality in craniotomy cases where the conjugate is $2\frac{1}{2}$ in. or less has been shown by Parry to be $37\frac{1}{2}$ per cent.; Dr. Harris states that he has verified this by his own researches. In the whole Cæsarean cases which I have referred to it was 57·6 per cent.

But these cases include patients exhausted after long labour, some *in articulo mortis*, others suffering from grave and mortal disease, and in nearly all it was decided that craniotomy could not be performed, whilst in some it had been tried and failed—in a word, they were, with a few exceptions, operations of necessity, death resulting not so much as a consequence of the operation as from other causes. But when we come to the few cases in which timely operations were performed, we find the maternal mortality only 25 per cent., or $12\frac{1}{2}$ per cent. less than the craniotomy cases. Dr. Barnes remarks, as I have quoted before, that fatal craniotomy cases cannot be recognized unless the operation was performed before exhaustion had set in—conducted with due skill and after the most improved methods; and it may be argued that, judged by this standard, the mortality would be less than $37\frac{1}{2}$ per cent.

If this method of exclusion be applied to craniotomy, does it not apply with equal force to the Cæsarean section? and if applied and practised, I doubt not that the mortality would be reduced below 25 per cent., and more than hold its own against embryulcia.

Although timely operation is the great prophylactic, yet we find that even in early cases, where the mortality was only 25 per cent., none of them have been treated in an antiseptic manner which would satisfy ovariologists.

LAPARO-ELYTROTOMY.

To escape from the dilemma of embryotomy on the one hand, with its necessary destruction of the child and great risk to the mother, and on the other of Cæsarean section, with its high rate of maternal mortality—to devise some method of procedure that would save the child and lessen the risk to the mother—is a problem to solve which efforts have been made before our day. (The history of the operation was then summarized.)

The operation consists of an abdominal incision parallel to Poupart's ligament, from $1\frac{3}{4}$ inches above and outside spine of pubis to anterior-superior spine of ilium. The muscles are then cut through layer by layer. The peritoneum lifted up (not cut), a staff, or the finger if possible, is passed into the vagina, and it is pushed up into the wound. The vagina is incised on the point of the sound or finger, at a distance of $1\frac{1}{4}$ to $1\frac{1}{2}$ inches from the uterine insertion. The incision is only to be large enough to admit one or two fingers, and is then to be enlarged by tearing. The os uteri is to be lifted by blunt hooks, and at the same time an assistant depresses the fundus towards the opposite groin. The child is then delivered by version, or by the forceps. Hæmorrhage having ceased, the abdominal wound is closed by sutures. "The vagina should be syringed out every five hours with warm carbolized water, the nozzle of the syringe being carried through the vaginal opening, and the fluid forced out through that in the abdomen."*

Prior to operation, the os uteri ought to be dilated either by the natural progress of labour, or, if delay be inadmissible, by artificial means. Independent of its results to the mother and child, its adoption will depend on the answer to the question—Is it a difficult operation? "According to the unanimous statement of all who have tried it, it is not even a difficult operation."† The only difficult step in it is to divide the transversalis fascia without wounding the peritoneum, but this is not greater, if indeed it be so great as is daily met with in hernia. In only two cases was there any difficulty in extracting the child, and that was caused by the ankylosis of the hip-joints at right angles to the pelvis, which was readily overcome in one, and by tonic contraction of the uterus in the other.

* *Obstetrical Journal*, 1879, p. 247.

† Garrigues, *Gynecological Transactions*, 1878, p. 220.

The dangers to the mother likely to result are :—1. Hæmorrhage ; 2. Shock ; 3. Septicæmia ; 4. Cellulitis ; and 5. Vesico-vaginal Fistula.

The three first are common to it and the Cæsarean section, but in the latter there are peritonitis, metritis, and incarceration of the intestine, which are almost, if not altogether, excluded in laparo-elytrotomy. Cellulitis may occur after Cæsarean section, and peritonitis after laparo-elytrotomy, but they are rare complications, and peritonitis is a more dangerous disease. Shock is more severe when the peritoneum is opened. The dangers, then, to be compared are hæmorrhage and septicæmia.

In laparo-elytrotomy it is evident that the danger from the latter source is less. The wound is, as it were, superficial ; it is easily reached, it is readily drained, and can be kept flooded with disinfectants.

The risk from hæmorrhage is more serious. The vagina is surrounded by a vascular network of vessels freely anastomosing with those of the uterus, rectum, and vulva, and likely to bleed profusely on being cut. This danger appears to be less in Cæsarean section. Vesico-vaginal fistula is a complication peculiar to laparo-elytrotomy. Out of the eight later cases the bladder was injured in four.

In favour, then, of laparo-elytrotomy, as contrasted with the Cæsarean section, we find metritis and incarceration of intestine excluded, peritonitis reduced to a minimum, and shock and septicæmia lessened ; on the other hand, increased risk of hæmorrhage and vesico-vaginal fistula. The advocates of the operation assert, with regard to hæmorrhage, that it can, in a great measure, be prevented, and, if it does occur, controlled.

“The third step—the incision of the vagina—may be made almost safe by using the cautery, and by tearing instead of cutting.”*

This plan has, up to the present, proved satisfactory, as in the eight reported cases there was no hæmorrhage. The upper and lower portion of the vagina being more vascular than the middle, and the ureter lying in the upper portion, the opening should not be made too near the uterus.

The direction of the wound is also important. As the tear will most readily follow the direction of the strongest fibres of the

* Garrigues, *Gynæcological Journal*, 1878, p. 223.

vagina, which run in an oblique direction downwards and inwards, it should be made obliquely parallel to the brim.

Vesico-vaginal fistula may be avoided by prolonging the rent backwards, and by extracting slowly, so that the parts may have time to expand, and thus limit the extension of the vaginal wound. The fistula may heal spontaneously.

With regard to the range of the operation two important points remain for experience to decide:—1. Can it be performed on the left side? 2. Can it be performed more than once on the same side?

In all the recorded cases, save in Baudelocque's, it has been done on the right side, and in his there does not appear to have been any difficulty experienced in extracting the child; but peritonitis was discovered at the autopsy. This may have been due to ligation of the vessels.

The healing process and cellulitis, if present, would seem likely to so mat the parts together, and to so alter their relations, as to render a second operation, if not impossible, exceedingly difficult and dangerous. These points time will alone solve. Yet a case recorded by Dr. Skene shows that, although the operation is rendered more difficult, and requires greater care and more time, it is not impossible or necessarily fatal. In his case both mother and child were saved, although the former was a bad subject for operation.

The table I have annexed divides itself into two parts—three early cases and eight modern. The total mortality was seven, or 63·3 per cent. But the three early cases must be excluded, for in two laparo-elytrotomy was abandoned and the Cæsarean section substituted, and in the third the operator needlessly complicated it by ligaturing the internal and common iliac arteries—in itself a serious operation. Of the eight cases since 1870, four proved fatal, or 50 per cent. This would, at first sight, indicate that, however less severe theoretically, practically it was as fatal as the Cæsarean section. But an examination of the cases shows that the entire mortality cannot be attributed to the operation.

In comparing the comparative mortality of the two operations the condition of the patient must be taken into account, for in a healthy patient, unexhausted by long labour, both may give good results. Yet, when symptoms of exhaustion have set in, one may afford better results than the other.

In Cæsarean section the rate of mortality increases enormously

with the duration of labour, and after four days the dangers from septicæmia, peritonitis, and shock, would render the prospect well-nigh hopeless.

Although the cases of laparo-elytrotomy are too few to enable us to form a decided opinion, yet it is worthy of note that in one case the patient had been four days in labour, and her condition is described as very bad. It seems that it is probable that in such cases its mortality will be less than that of the Cæsarean operation.

If we exclude the cases moribund at the period of operation—viz., one from pneumonia and one from cancer—we find six cases and two deaths, or 33·16 per cent.

Of so new an operation it is impossible to speak decidedly. In its youth ovariectomy did not yield very favourable results.

Even if experience proves that its results are commensurate with the favourable hopes held out by theory, its field is limited. It is doubtful if it can be repeated on the same side ; it cannot be performed if the head is wedged in the pelvis ; if the os is occluded ; if there exist occlusion or narrowing of the vagina, or its obliteration by cicatricial tissue ; when the pelvis is blocked by tumours, or the os uteri is the seat of considerable disease.

PORRO'S OPERATION.

This, the latest operation proposed as an alternative for embryotomy, has had a wonderfully rapid development.

Various modifications of the original method have been proposed and performed, but it will be seen that it is a combination of the Cæsarean section with amputation of the supravaginal portion of the uterus at a level with the os internum.

Although the number of cases are too few and the operation too recent to afford satisfactory evidence of its value, yet it will be well to see what advantages it theoretically possesses over the Cæsarean operation. The dangers which attend Cæsarean section are:—1. Peritonitis; 2. Metritis; 3. Hæmorrhage; 4. Septicæmia; 5. Shock; 6. Intestinal obstruction, arising from a coil of intestine being incarcerated in the uterine wound.

By Porro's method the second, third, and sixth of these are abolished ; the fourth is enormously reduced, and, if antiseptic precautions are fairly carried out during the operation itself and in the after-treatment, it also ought to be got rid of ; the fifth remains a constant factor to both ; and the danger of the first is reduced,

for peritonitis, depending in a great measure on the presence of irritating fluid in the abdomen, is not so likely to result where the uterus is removed as in the older method, where, with too often a gaping wound, it is left behind.

The operation in itself is extremely simple at first—as in an ordinary Cæsarean case, so far as exposing the uterus. A strong iron or steel wire should then be passed over it, and brought down to its lower portion below the ovaries, as low down as the attachment of the cervix to the fundus of the bladder will allow, ready to be tightened at the proper moment. The uterus is then opened and the child extracted, and the wire ligature compressed until all bleeding has ceased; the uterus is brought out through the abdominal wound, the placenta extracted, if this has not been done before, and it and ovaries cut off. The abdominal cavity having been carefully sponged and cleaned, the edges of the incision in its walls are brought together, and the uterine stump fixed in the lower angle of the wound. The operation has been in some instances modified by bringing the uterus and its contents through the abdominal wound before opening it. This plan is in some instances undoubtedly good, as it affords perfect security against the escape of any of the contents of the wound into the peritoneal sac. If there is great distortion, especially anterior convexity of the spine, and a moderate size of the uterus, it can be easily effected without making the abdominal wound excessively large; and if the womb be twisted on its axis, so that it can escape edgewise, it will pass through a comparatively narrow opening. But in the majority of cases—and especially if the uterus be large, containing a large well-developed child, or a considerable quantity of liquor amnii—the abdominal incision would have to be considerably enlarged, and ovariectomy has shown that the smaller the wound the better the prospect of the patient's recovery; besides, careful approximation of the abdomen to the uterus during the extraction of the child, will in most instances prevent an escape of the fluid into the abdominal cavity. In all cases the iron or steel wire should be passed over the uterus and down to its place before opening it, so as to prevent hæmorrhage, or rather to control it, as soon as the child is delivered. Müller and Fehling, with a view of entirely preventing hæmorrhage, have not only done this, but have constricted the cervix with the wire before opening the uterus. The only objection to this precaution is, that it may defeat one of the chief objects of the operation by

endangering the child's life. In Fehling's case the child was extracted alive; in Müller's it was dead before the operation was undertaken.

Whilst, undoubtedly, this practice is safest for the mother, its adoption must depend on its effects with regard to the child. *Primâ facie*, there does not appear to be any reason why the child should suffer, for the incising of the uterus and extraction of its contents need not occupy more than a minute—more especially as, since the uterus is afterwards to be removed, and as all danger of hæmorrhage has been taken away by the tightened ligature, there need be no hesitation in making such a large incision in it as will render the extraction of the child perfectly easy, and will prevent any danger of its contracting on and grasping the neck of the infant. Post-mortem Cæsarean, footling, and breech cases prove that the circulation can be checked and the child saved after a longer period of time than would elapse between the constriction of the cervix, the incision of the womb, and the delivery of the child through the wound.

I have already suggested that, owing to the process of involution, the system being loaded with effete material, a special susceptibility to septic infection exists in the puerperal state. This, to a considerable extent, seems diminished by Porro's operation; instead of the gradual process which follows when the uterus remains, it is got rid of, as it were, by an immediate involution. But not only is this the case, but a source of continued infection is cut off; and this is a decided gain over the ordinary Cæsarean operation.

The mortality after ovariectomy has been reduced to 7 per cent.* There does not appear to be any reason why it should not be as low after this operation. The tumour is not larger; the shock is not greater; the injury to the peritoneum is less, there being no adhesions to be separated; the time occupied in its performance is much shorter; the entire proceeding much easier and simpler, and the patient's general health at least as good, if not better.

The great objection to the operation is the removal of the uterus and ovaries; that the woman is mutilated and rendered sterile, or, as has been stated by some, that it unsexes her. As far as the question of mutilation goes it has not much weight. A mutilation is effected where the breast is removed or a limb amputated.

* Mr. Spencer Wells, *British Medical Journal*, Nov. 15, 1879.

The rendering the woman sterile is not an unmixed evil. The field of Porro's operation would, in this country at least, be limited to those cases in which the child could be delivered only by embryotomy or Cæsarean section. It is proved that in extreme pelvic distortion the risk to the woman from embryotomy is very great. Therefore, her continued fecundity is a source of frequently recurring peril, of great suffering and prolonged convalescence.

A very important effect has been claimed for this operation by Professor Späth—viz., that it cures osteomalacia. If this be so, in such cases it will prove a decided improvement on ordinary Cæsarean section, for its results are not favourable in osteomalacia. Like laparo-elytrotomy, its range is limited—"it is not practicable when some affection or other of the cervix uteri prevents the formation of a stump.

It is a matter of considerable moment whether the pedicle can with safety be tied and dropped into the abdomen, or whether it must be treated externally; if it can, the range of the operation will be extended.

Hitherto the extra-peritoneal method has alone been attempted Professor Stadfeldt proposes to tie the pedicle in two portions and drop it. He has not, as far as I am aware, had an opportunity of trying this plan.

What is required is, that the raw surface of the stump should not be left exposed in the cavity—that whilst sufficient constriction is employed to prevent bleeding, yet that it should not be so great as to entirely stop nutrition in the distal end of the stump, and that secondary hæmorrhage should be guarded against. This might be effected by amputating the uterus by a flap operation—that is, instead of cutting it off by a circular incision, leaving a flat surface, it should be removed by a V-shaped one.

Having now considered the theory of the operation, it remains to be seen what results have followed its adoption in practice, and for making an analysis of the cases the details are entirely deficient.

There have been thirty cases reported—all on the continent of Europe—with the result of fourteen mothers being saved and sixteen deaths, or a mortality of 53·3 per cent. This does not look a very encouraging outcome for a procedure which has, undoubtedly, theoretical advantages over Cæsarean section. But it must be borne in mind that the operation is very young (only three years old), that details are wanting to enable us to see how

much of the fatality is due to the operation, and that time may show that better results may be obtained, as our experience of it increases. A markedly favourable circumstance, however, must not be overlooked—that is, that it has been successful in places where, for a hundred years, every Cæsarean case has terminated fatally.

Up to the 2nd of June 1876, when Späth* operated, every Cæsarean case for a century had proved fatal in the Lying-in Hospital of Vienna ; and up to the 20th of May, 1879, when Professor Tarnier operated, at the Maternité of Paris, a like fatality had followed from 1787.

The adoption of Porro's operation will depend on its success in saving the mother's life, and on this success being greater than that of Cæsarean section. Its results hitherto fairly entitle it to serious consideration ; that on the Continent it is favourably regarded is shown by the number of cases operated on in so short a time.

It now remains to be seen what relationship these three operations bear to each other and to embryotomy—how far any, or either, of them are likely to supplant the others, or to do away with the necessity for craniotomy.

On reading the records of the Cæsarean operation, one cannot fail to be impressed with the conviction that if the same promptitude and care had been given to it which marks modern surgical operations—if the same efforts had been made to perfect it which have been devoted to embryotomy, a very different mortality would have been recorded.

As to how far laparo-elytrotomy and Porro's operation will supplant Cæsarean section, time alone can tell. It has been shown that, with all defects of operation, timely Cæsarean section has a mortality of only 25 per cent. ; to supplant it in such cases, the others will require to show as low a fatality. If the mortality of laparo-elytrotomy reaches this level, I agree with Professor Stadfeldt that it ought to commence the series. In future pregnancies, unless the pelvic contraction is very great, the induction of premature labour will get over the difficulty. But experience has shown that, no matter how solemnly we warn a patient of the risk of allowing her pregnancy to go to full term, she will in too many cases allow the opportunity to pass, and

* *American Journal of Medical Science*, October, 1879, p. 509.

then the consideration arises as to what operation should be performed. If Porro's method comes up to the standard of success, it will have the advantage that it will remove all chance of future danger.

It may be said—Why not resort to Porro's operation in the first instance, or why not perform laparo-elytrotomy again? In the first instance, laparo-elytrotomy gives a hopeful prospect of a living child, and leaves the power of conception unaffected, so that a prospect of a second child, without largely augmented risk, is given. In the second place, I have already shown that it is doubtful if laparo-elytrotomy can be performed a second time on the same side—at least without excessive peril; and it is doubtful if it can safely be done on the left side, where there is not only less room, but the cicatrix in the vagina from the former operation would prove a formidable bar to its success.

From what we know of the causes of mortality in Cæsarean cases, which principally result from tedious labour, those cases in which many hours have elapsed before medical advice is sought for or given, afford a field for these operations in which we can hope for more favourable results—the special liability to peritonitis, septicæmia, and hæmorrhage, which attends late Cæsarean, not attaching to them.

It seems, therefore, that, with a mortality of 25 per cent., Cæsarean section is indicated in early labour, and either Porro's or laparo-elytrotomy after prolonged. If in such the mortality is found to be low, it will be right to resort to them in early cases.

This lesson should, however, be strongly and forcibly taught, that as soon as obstruction is discovered, necessitating operative interference, no time should be lost.

Three alternatives to embryotomy are now before the profession. It behoves it to give them most earnest attention, so that there may be, if possible, added to the list of triumphs of the surgery of the nineteenth century that of removing from its canons "the only operation recognized and sanctioned by the British profession which is undertaken with the avowed intention of destroying life."

Meeting, Saturday, April 3, 1880.

E. B. SINCLAIR, A.M., M.D., *President, in the Chair.*

Exhibition of a Monster born in the Rotunda Lying-in Hospital.

DR. ATTHILL said : On being called to see a woman in labour, I found protruding from the vulva a portion of intestines like those of an adult. I understood that the patient had been upwards of twelve hours in labour, under the care of a midwife, who had brought her to the hospital. The presumption on my mind was, that rupture of the uterus had taken place ; that the midwife had pulled down the woman's intestines, and that the patient was moribund. On feeling her pulse I was surprised, however, to find that it was quiet and regular, and I at once saw that my suspicion of improper treatment was unjust. On passing my hand into the vagina I found that I could trace the intestines inside the os uteri, and could feel nothing else except an irregular mass. I was then satisfied that I was dealing with a monster. I also felt an arm, and passing up a blunt hook I got it over the child's shoulder, and, without any very great difficulty, delivered the woman of this monster, notwithstanding that the head is of very large size. It will be seen that the entire of the lower anterior portion of the abdominal wall is wanting, the intestines and the liver are free, and the legs are malformed. As far as I am aware, the specimen is unique. I thought it to be of medico-legal interest, as a case that might have been mistaken for the result of malpractice or accident. The child was dead. The protruded intestines were immensely distended, and as large as those of an adult.

Dr. Atthill also exhibited two intra-uterine polypi, which were taken from an unmarried woman aged thirty-five.

Acute Hydramnios.

BY ALFRED H. M'CLINTOCK, M.D.

AS dropsy of the amnion is not a rare disease, and, moreover, as it formed the subject of a valuable communication from Dr. Kidd not long ago, my remarks will necessarily be somewhat restricted. I wish chiefly to direct attention to what may be called the *acute* form of the disease. In the mild or chronic cases, which

are those most commonly met with, the patient has little to complain of beyond the unusual size and weight of the uterine tumour, the accompanying symptoms not being such as to give rise to any serious indisposition, or to any alarm respecting her state.

Now it is of some importance to know that the disease is capable, on rare occasions, of producing a train of symptoms not only most distressing to the patient herself, but sufficiently grave to awaken fears for her safety in the minds of her friends, or even of her medical attendant. To be able to recognize these symptoms, and trace them to their true source, and so to pronounce a correct prognosis, is a matter of some consequence.

The pathological cause of dropsy of the amnion has not yet been clearly made out. On this part of the subject I regret to say that I have nothing new to offer. In the cases about to be related, while the amnion itself presented no appreciable morbid appearance, the placenta deviated considerably from its normal condition, being greatly enlarged, pale, remarkably soft, and evidently œdematous.

Simpson made the observation that diseases of the placenta are very apt to recur in the same individual, and my own experience strongly corroborates this. Such a fact suggests a probability of the disease having, in some degree at all events, a constitutional origin.

It is asserted, by Lange I think, that an œdematous condition of the placenta—to which I have already alluded—is present in all instances of amniotic dropsy. If this be not the strict truth, it certainly is not far removed from it, as in nearly all the cases of the disease in question which have come under my notice, the placenta exhibited more or less of a morbid condition. For this reason, and also because the vascular nutrient supply of the amnion would seem to be derived from the placenta, I am led to believe that in the great majority of cases the dropsical effusion into the amniotic sac has its primary cause in the after-birth. At the same time, I would be slow to deny that inflammation of the amnios may sometimes produce the dropsy. This qualifying statement I make in deference to the authority of M. Mercier, who ably advocated this view, and supported it by some highly illustrative cases.

I shall now briefly lay before you the leading features of three cases, which will serve as good illustrations of the *acute* form of dropsy of the amnion.

CASE I.—In the spring of 1878 a lady engaged me to attend her at her tenth confinement, which she expected about the 20th of July, dating from the last appearance of the catamenia. Her first and second children were born alive, at the full time, and have survived, but all her succeeding pregnancies—and they were seven in number—had terminated prematurely, the children being dead, and more or less decomposed, with an excessive quantity of liquor amnii. She had been subject at times to bronchitis, but beyond this both she and her husband were very healthy.

During the month of May her size rapidly augmented. She suffered much from loss of sleep, restlessness, flushings, palpitation, heat of hands, headache, and pyrexia, with extreme rapidity of pulse; abdominal pains, and general malaise. There was some œdema of the lower extremities, but no trace of albumen in the urine.

On the 1st June (that is, about six weeks before the expected period) she fell in labour, and after some hours expelled a small male child, far gone in decomposition, but not exhaling any foetid odour. There was an enormous quantity of thick offensive liquor amnii. Considerable hæmorrhage ensued, and I had to extract the placenta, which was fully three times the normal bulk, œdematous, pale, soft as porridge, insomuch that it required the hand to be passed into the uterus three several times to effect its removal; and, even so, some fragments remained behind, and were discharged in the course of the next few days. She recovered slowly, but perfectly, and quite regained her health.

CASE II.—Last May (1879) this lady again conceived, and up to the period of quickening, or thereabouts, enjoyed unusually good health. Soon after this I put her on the use of chlorate of potassium and iron, which very much disagreed with her, and had to be discontinued. I then tried both these remedies separately, but with no better result. Early in December she began to notice a rapid increase of her size, and at the same time all her old symptoms came on with great acuteness. The pulse never was below 100, and on the slightest excitement, or after any stimulant, however mild, it got up to 120 or 130, with general heat and thirst; she had frequent abdominal pains, slept badly, and had no appetite. Her condition now became extremely distressing, as she had no respite from pain or annoyance of one kind or another, and she was entirely confined to bed or the sofa. Nothing I could do gave her any ease, except morphia in small quantity, which relieved the abdominal

pains, and procured her some sleep. Her husband and friends now became so much alarmed at her weakness, constant pain, and persistent rapidity of pulse, &c., that Dr. M'Donnell was asked to meet me in consultation, with a view to see if there could be any cause for these symptoms other than the gravid state. None such, however, could be discovered on the most careful investigation. Towards the middle of December, and when she was about six and a half months gone, her size exceeded that of a normal pregnancy at full period. On the 28th of December labour pains set in. As soon as the os was nearly fully dilated—no presentation being then tangible—I ruptured the membranes, and found a leg presenting. This I seized and brought down, and quickly extracted a decomposed male foetus. There were several pints of liquor amnii. The placenta was enormously large, but not quite so pale or soft as on the last occasion, and was expelled without any direct manual interference.

She recovered perfectly, but what struck me as being most remarkable was the rapidity—I might almost say the suddenness—with which all her distressing symptoms subsided from the very moment of delivery; so that her convalescence was in the highest degree satisfactory.

I was much disappointed in this case at the signal failure of a line of treatment which has proved on many occasions so successful in preserving the life of the foetus.

CASE III.—About the time the last labour occurred, another lady, from a distant part of Ireland, came under my notice, whose obstetric history was as follows:—In her first pregnancy she went to term, and was confined, under my care, of a daughter, dead, but evidently not more than two or three days so. Its death seemed attributable to the accidental separation of a part of the after-birth, and hæmorrhage consequent thereon. Her second child was a boy, born alive at term; her third child also a boy, born alive at full time; her fourth child a girl, born weakly, and died jaundiced, on the third day; her fifth was a boy, born prematurely, and dead for some days previously; the quantity of liquor amnii on this occasion was greatly in excess. Her sixth was also a boy, and born dead under exactly the same circumstances as the last, with the addition of hæmorrhage *post partum*. Three months after this confinement she came to me to be treated for uterine catarrh, abrasion of the os uteri, and slight posterior misplacement of body of the womb. After a couple of months she was much improved and

again conceived—this being her *seventh* pregnancy. Soon after quickening I began to try my favourite remedies of chlorate of potassium and iron, separately and combined, under every possible form, in the hope of prolonging gestation or saving the life of the *fœtus*. But, as in the former cases, they disagreed so much that I had, very reluctantly, to relinquish their administration altogether. From the commencement of this pregnancy she had remarked her size to be greater than on any former occasion ; but towards the middle of the sixth month she noticed the uterine tumour to undergo a rapid increase of bulk ; and about the same time she began to experience loss of appetite and sleep, thirst, and feverishness, at times most distressing. There was a constant feeling of restlessness and discomfort, so that she was deprived of all enjoyment, and spent her time in bed or on the sofa. Somewhat later she had frequent abdominal pains, evidently due to uterine contractions. There was also slight *œdema* of the feet and ankles, and the urine showed a faint cloud of albumen. I tried the effect of different remedies—such as diuretics, febrifuges, anodynes, &c.—but without any satisfactory result.

On the 13th February—being about the middle of the seventh month of her pregnancy—she was delivered of twins, a male and female, after a tedious labour. Both children were dead, and partially decomposed. She was attended for me by Dr. Symes, of Kingstown, who thus writes about her case :—“The children appeared to be dead for some days, as the cuticle was peeling off. There were two placentæ, each very large and very soft, and a very large quantity of liquor amnii with each of the children.”

About a week before labour I saw and carefully examined this lady, who was then confined to bed, and suffering extreme distress and annoyance from the group of symptoms I have already pointed out. The abdomen was much distended. I regret much I did not measure it ; but certainly it was large even for the full term of pregnancy, though this was still nearly three months distant. No *fœtal* heart could be detected, no *fœtal* movement felt. On vaginal examination I was surprised to find the presenting head in close apposition with the os uteri, and not to be displaced by any ordinary pressure of the finger. Relying on this diagnostic, I ventured to predict to her husband and friends “that she would most probably give birth to twins,” which, as already stated, turned out perfectly right, and confirms the correctness of the observation I made on this diagnostic point in my

original memoir, published seventeen years ago.* I would just remark here that both in this and the former case occasional hardening, or contraction, of the uterus, was perceptible long before the accession of labour. This sign would help us to differentiate, in any doubtful case, between ascites or ovarian tumour and dropsy of the amnion.

My failure to arrest the disease after the symptoms of its presence had manifested themselves is only what has fallen to the lot of all other practitioners, I believe. When this form of dropsy sets in at any considerable period before the end of the ninth month—*e.g.*, at the beginning or middle of the sixth month of utero-gestation—the life of the foetus will, pretty surely, be compromised ; but when the dropsy does not arise till near the end of pregnancy, there is some chance for the child. In any case, however, this complication must be regarded as exercising a most prejudicial influence upon foetal life. In none of the cases falling under my notice, where, apparently, pre-natal treatment was successful in preserving the life of the foetus, this amniotic dropsy did not enter into the case ; whilst in the cases I have here recorded, and others that could be adduced, all treatment has signally failed to preserve the child when the hydropic condition was present.

In neither of the patients whose cases are reported in this Paper was there the remotest reason to suspect the existence of constitutional syphilis, and this is quite in accordance with my previous experience of the complaint.

I have just mentioned that hydrops amnii is frequently associated with the death of the foetus. In proof of this it may be mentioned that of 43 children born where the disease existed, 20 were born dead, and 16 of these had ceased to live some days or weeks before labour had set in ; and 11 of those born living died within a few days after birth. These facts are very striking, and tend to invest the disease under consideration with a high degree of importance. The question here arises—Is this fatality a consequence of the dropsy, or an effect, in common with the dropsy, of some antecedent pathological change going on in the placenta, the sole organ of foetal nutrition ? The latter is the view I hold, though unable to produce any demonstrative evidence in support of it.

I have stated that medical treatment, so far as I am aware,

* “Clinical Memoirs on Diseases of Women,” p. 330.

seems incapable of arresting this intra-uterine disease. Iron, the salts of potassium, diuretics, digitalis, purgatives, febrifuges, anodynes, and mercury, have all been tried and found useless, or worse than useless. Arsenic is the only drug that seems to hold out any prospect of being serviceable, but I have not tried it, nor do I know if any one else has done so. The induction of premature labour might prove a valuable alternative, but should be restricted to cases where the symptoms appear late in the seventh month, or subsequently, in order that the child may be viable at birth. It was plainly inadmissible in the foregoing cases, so far as the interests of the fœtus were concerned.

Let me now bring this paper to a conclusion by very briefly summing up the general results of all the cases of amniotic dropsy coming under my cognizance, and of which I preserved notes.

Their total number amounts to 43; 4 of the mothers died. In 23 instances labour came on prematurely; 32 of the children were females, and 13 were males; 20 of the children were dead born, of whom 16 were in a more or less decomposed state. In only 36 instances was the presentation noted, of which 25 presented the head, 10 the pelvic extremity, and 1 the upper extremity.

Dr. PUREFOY.—Some years ago a case came under my observation of a woman who had had one or two healthy children, and two or more afterwards still-born. I had some suspicion of the existence of lues venerea, but no definite grounds. The woman came under my care for an enlarged uterus, and shortly afterwards became pregnant. After three months she became troubled with a pain in her side, indicating a diseased condition of the placenta. Owing to having seen Dr. M'Clintock's observation on the subject, I treated her with chlorate of potassium and tincture of iron. After taking these medicines for a few weeks the pain subsided, and she went on to delivery and had a tolerably healthy child, although it had some affection of the palms of the hands and soles of the feet. She has had another healthy child since.

Dr. HENRY KENNEDY.—An anonymous letter appears in the "Transactions of the College of Physicians," in which attention was for the first time directed to the fact of children being born alternately healthy and diseased. Some of the cases mentioned in that letter are exactly like those which Dr. M'Clintock has mentioned.

Dr. KINKEAD.—A short time ago a case bearing on this subject came under my notice. It was that of a healthy young woman of a respectable class, from the country, whose husband had always been healthy, and there was no reason to suspect venereal in either of them. I did not attend her in her first confinement, but ascertained that her child died four or five days after its birth. I attended her in her second confinement, and saw her six weeks before her time was up. She was then of an enormous size, had a difficulty in lying down, and a pain in her side. Her labour came on by the waters escaping suddenly while she was out walking. She came home and had a rapid labour, and after the child was born there was the most enormous gush of water I ever saw. There was a tendency to hæmorrhage. After she became pregnant of her next child I put her on chlorate of potassium and tincture of iron, and she was afterwards delivered of a healthy child. The child of her next confinement was a miserable, badly-nourished infant, and died within two days after its birth. Its circulation was so bad that if you put it lying on its side its under-limb would become black. In her confinement after that the woman had a strong healthy child.

Dr. ROE.—A few months ago I was called to see a lady who became suddenly very large when she was about six and a half months pregnant. After making a careful examination, I concluded she was suffering from dropsy of the amnion. On making a vaginal examination I found a head presenting, but could feel no membranes whatever. The os was not much dilated. On the following day I had a consultation with Dr. Kidd, when, on making a vaginal examination, we found a child lying in the vagina. There had been a good deal of pain all the previous night, and a large quantity of water had come away. I took away this child. It appeared to be of about six months, and was somewhat decomposed—having, I believe, been dead for some time. The membranes of another child then presented, which I ruptured. There was now a fearful gush of water, amounting in quantity to fully seven quarts. Another child presented by the feet, which I delivered; it was about the same size as the first, and was also decomposed. The two placentæ, which were very small, came away together without any difficulty. The uterus did not contract very rapidly, and a good deal of bleeding ensued, but the patient made a very good recovery. This lady has had several

healthy children and never had a miscarriage, and there was no reason to suspect the existence of syphilis.

Dr. M'CLINTOCK (in reply).—In my former memoir I called the disease *dropsy of the ovum*, in order to include cases where the accumulation of fluid was within the chorion and external to the amnios. I do not deny that syphilis might be the cause of the disease; I only say that in the cases I have brought forward there was nothing to justify the supposition of there having been any syphilitic taint.

The Society then adjourned.

Meeting, Saturday, May 1, 1880.

E. B. SINCLAIR, A.M., M.D., *President, in the Chair.*

Craniotomy and its Alternatives.

THE discussion on Dr. Kinkead's Paper on "Craniotomy and its Alternatives," which had been adjourned, took place.

Dr. KIDD.—It must be apparent to every one who has watched the progress of obstetric opinion, that there has been a well-marked desire manifesting itself for many years past to avoid, as far as possible, the operation of craniotomy. Dr. Kinkead's Paper has brought into a focus the opinions bearing on the subject, showing, in a manner that I hope will burn itself into the minds of all, that the operation is one always to be approached with hesitation and great reluctance. The question Dr. Kinkead has brought before us is as to the performance of craniotomy or alternative operations in cases of extreme narrowing of the pelvis; but before entering on this subject, I must, to avoid the risk of misapprehension, draw your attention to a class of cases to which he has not thought it necessary to allude. There are cases in which the diminution of the pelvis is not so great as in those alluded to by Dr. Kinkead, but in which the child could not pass through the pelvis in an unmutilated condition. It is impossible to fix exactly the limits of dimensions in these cases. Authors variously mention antero-posterior diameters of from $3\frac{1}{2}$ inches to 3 inches, or less, as the smallest through which a living child may pass. At the bedside I believe this difficulty can never arise, where you can have opportunities of comparing the size of the head lying above the pelvis with the size of the pelvis itself, and can apply a forceps carefully once or twice, besides having the assistance of a person

in whose judgment you have confidence. If we are once satisfied, after due and careful trial, that we cannot bring the head through in an un mutilated condition, and that delivery can be easily and safely effected by the operation of craniotomy, I maintain that it is our duty to lessen the head, and to deliver the woman. I say this, viewing the question from a purely obstetric point of view, which is the only one that we here, and in this Society, are called on to consider. We hear that the danger of craniotomy is greater than that of Cæsarean section ; and that applies, it is true, to extreme cases, but not to the cases of which I speak. In the cases of which I speak it has been shown conclusively by Dr. M'Clintock that the danger of craniotomy is really not as great as the danger of delivery by the forceps, provided it be done judiciously, and before the patient's condition has been so run down that she would probably die, no matter what operation was performed. We come now fairly to the question of the danger of craniotomy in cases of extreme narrowing of the pelvis. Dr. Kinkead has shown that all the great leaders of obstetric medicine have been fully aware of the great danger and difficulty attending the operation of craniotomy, and are, therefore, ready to discuss Cæsarean section, or any modified form of it, as a substitute. It is important to note that these cases are of rare occurrence. Early in my connexion with the Coombe Hospital I came to the determination that if ever I met with a case of this kind, I would very carefully consider the propriety of performing Cæsarean section, instead of proceeding to craniotomy ; and I remember a conversation with you, Mr. President, as one of the consulting accoucheurs to the hospital, in which you said you were prepared to stand by me in performing Cæsarean section. I mention this to show that I am not prejudiced against Cæsarean section ; on the contrary, I believe craniotomy, under such circumstances, is attended with extreme danger to the mother. Fortunately, however, as I have said, such cases are of very rare occurrence. I have been for thirty-two years, more or less, closely connected with the Coombe Lying-in Hospital. During that period 2,000 patients on an average were delivered under our care in each year ; and, looking back on those years, I can only call to mind one case in which the present question would have arisen. I have already put that case on record. Had that woman come to the hospital with a living child in her womb, I would have canvassed very carefully the question of how

she was to be delivered. But she was brought from the Dublin mountains on an ass's cart, with the child, which had presented as a footling, hanging out from the vulva, its head above the brim of the pelvis, the neck torn through, and the body attached to the head only by a fragment of skin. In such a case, of course, the alternative of Cæsarean section or craniotomy could not arise. She had exostosis of almost every bone in her body, one of which grew from the sacrum, and obstructed the brim of the pelvis. I delivered her with the cephalotribe, and she recovered without any bad symptoms, and left the hospital in a fortnight. After the most careful examination that we could make of her on that occasion, we found that she had an antero-posterior diameter of the brim of not two inches. Her case greatly modified my opinion on the question of Cæsarean section. She came back twice after that to the hospital, and on those occasions also I delivered her safely, and she recovered without any bad symptom. When she was last in the hospital I told her that this work of killing children was one that must be stopped, and that it was her bounden duty to avoid the risk of pregnancy. Her husband seemed satisfied, but they must have changed their minds, for I heard that she afterwards became pregnant, and died undelivered. I believe the question of craniotomy or Cæsarean section to be one that must be decided by each man's own experience, and that it cannot be decided by any statistics that have been produced. If I could deliver a woman with a cephalotribe, I would be sorry to expose her to Cæsarean section in any of its forms ; so that, notwithstanding the statistics laid before us by our American brethren, and so ably collected by Dr. Kinkead, I do not accept the proposition that, even with so narrow an antero-posterior diameter as two inches, it is our duty, without considering anything else, to perform Cæsarean section. Dr. Kinkead has alluded to cases where labour is obstructed by a tumour lying in the pelvis. I have twice brought that subject before the Society myself. The same rule, I think, applies to such cases as to those of narrowing of the antero-posterior diameter. If you have a tumour occupying the brim of the pelvis which you cannot push away, or diminish in size by tapping, the question of Cæsarean section or craniotomy very fairly arises. Under such circumstances, I believe Cæsarean section would probably afford the mother a better chance than dragging the child through the pelvis, lacerating or bruising the tumour, and perhaps setting up

inflammatory action. But if it should be found that there was reasonable room for bringing the child through, I would hesitate very much, even in that case, before performing Cæsarean section. But, as I have said, the question must be decided, not by statistics, but by the circumstances of each case. The same thing applies to the third class of cases that has been referred to. If you have malignant disease of the uterus, with the cervix greatly thickened and hardened, and perhaps a scirrhus mass developed in it, and the woman is in labour, you will perhaps deliver the woman more easily, and give her a better chance of prolonging her life, by performing Cæsarean section than by attempting craniotomy. But if it be a case of epitheliomatous disease, with no great induration or surrounding infiltration of the tissues, you will probably deliver her more safely by craniotomy than you would by Cæsarean section. But I do not think it is possible to lay down any rule on the subject. The facts of each case must determine what is the mode of procedure to be adopted. As to the mode in which the Cæsarean operation should be performed—whether you should cut down through the abdomen, open the vagina, and deliver through the os uteri, or whether you should remove the whole uterus along with the child—I have formed no definite opinion. I have had no experience; but looking at the matter *à priori*, and from the descriptions I have read of the three kinds of operation, I am inclined to think that the easiest operation, and the one likely to be attended with the best results, would be the old-fashioned Cæsarean section.

Dr. M'CLINTOCK.—Although I have been for thirty-seven years actively engaged in the practice of midwifery, and during eleven years of that time in an hospital where there were a great number of deliveries annually, I never but on two occasions came across cases in which the question of Cæsarean section could really for one moment be entertained. In this country the occurrence of extreme contraction of the pelvis is very rare. Dr. Kidd's experience and my own give only three cases where the question of Cæsarean section could have been seriously entertained. Where there is only a slight degree of deformity of the pelvis, it requires a great amount of judgment to decide on the course to be pursued. But if you meet a moderately undersized pelvis, and if attempts by turning fail to extract the head and you know the child has ceased to live, one need not then hesitate to resort to perforation. But supposing that the forceps has been tried and

has failed, and that turning is impracticable, what are you to do? I agree with Dr. Kidd that in such a case no man of sense would think of proposing Cæsarean section. Here is a woman who has been a considerable time in labour, and if she be now subjected to hysterotomy no chance of life would remain; whereas by the performance of craniotomy there is every human probability that her life would be saved. We are indebted to Dr. Kinkead for bringing before us Porro's operation, which is hardly known in this country. No doubt the desire of obstetricians for many years past has been to lessen the frequency of embryulcia, and in that desire I heartily concur. Every man having the honour of the profession at heart should do his utmost to remove from the category of operations one so revolting to every feeling of our nature. At the same time I am not so sanguine as to expect that it ever will be entirely removed. With regard to the diminution in the frequency of this disagreeable operation I may say that the rising generation may congratulate themselves on the great progress in that direction which has been made during the last fifteen or twenty years by the early use of the forceps. So far as I can form an opinion, without having had direct experience, I agree with Dr. Kinkead that craniotomy, in cases of extreme pelvic deformity, has been attended with nearly as large a rate of mortality as Cæsarean section performed *early* in labour. A large number of statistics bring this result out. With respect to Porro's operation, Dr. Harris, in a report published in *The American Medical Journal*, has collected thirty-six cases, in eighteen of which the mothers recovered, and thirty-two of the children were saved. These results certainly, as far as statistical results go, incline me to that operation.

Dr. DARBY.—I think that in those rare cases alluded to by Dr. Kidd and Dr. M'Clintock, where the woman has a bony exostosis or tumour in the passage, I would be disposed to perform Cæsarean section, and give both mother and child a chance, although it might be a bad chance for both under the circumstances.

Dr. DILL.—I quite agree with everything that Dr. Kidd has said, except in one point. He said that after having delivered his patient a third time safely, he sent her home with instructions not to become impregnated again. That way of putting it goes to the root of the whole subject. I would say, that instead of giving her loose indefinite instructions on the subject, the second party should be given instructions also.

Dr. MACSWINEY.—It seems to me that gentlemen have not sufficiently kept in view that Dr. Kinkead's Paper simply puts before us the question of craniotomy on the one side, and its alternatives on the other. Dr. Kidd has laid down the recognized dictum, that in those cases where delivery cannot be effected by the forceps, after one or more efforts, recourse must be had to craniotomy. That is the rule laid down at present. That is, of course, attended with results in the highest degree favourable to the mother, and the question with regard to the infant does not arise. But there is another class of cases in which the deformity is so extreme that the result to the mother is not by any means so favourable as in the first case. The scope of Dr. Kinkead's Paper appears to me to be that sufficient attention has not been directed to the question as to whether it is not more advisable, having regard to the safety of the mother and the possible safety of the child, to have recourse to Cæsarean section rather than attempt the dangerous operation of craniotomy. He seems to challenge the dictum of obstetric surgery which says that the operation of craniotomy is a proper one to perform, and, in challenging it, he suggests that the reason why Cæsarean section has been attended with such unfavourable results in this kingdom is, that it is not performed in proper time, and when there is a fair chance of its proving beneficial to the mother. What I understand him to say is, that the Cæsarean operation has never received a fair trial in these kingdoms, contrasting it with the operation of craniotomy in those cases where craniotomy or its alternatives must be performed. I do not think that either Dr. Kidd or Dr. M'Clintock have addressed themselves sufficiently to this suggestion. The mortality from Cæsarean section in this country has been, no doubt, very great. The objectors urge to it that enormous mortality of the mothers and the very few children that are saved. Dr. Kinkead suggests that that mortality is so enormous because the operation is not performed in proper time; and the effect of his Paper, I think, is that obstetricians must either show that he has not made out a case for Cæsarean section, even when performed under favourable circumstances, or must admit that they are bound to resort to that operation, performing it at a proper time, rather than to craniotomy.

Dr. KIDD.—I fear I have misconveyed my meaning. I have always been ready to consider Cæsarean section in cases of extreme narrowing. At the same time, judging from my experience

of the only case I ever had of extreme narrowing, the tendency of my mind is in favour of craniotomy.

The PRESIDENT.—I wish to say one or two words on this important subject. Having a large class of young men to teach, this question has often struck my mind most forcibly. Cases will occur in the practice of midwifery where operative interference becomes necessary. In one class the forceps is tried, and it is found that no power we can use with it will bring forth the head. Though in such cases craniotomy is facile—in fact, an operation which will not in the least compromise the safety of the mother—are we in such to perform Cæsarean section? There are other cases in which the forceps fails, yet the narrowing is not so great as would make craniotomy very serious to the woman, although it would be more so than in the previously described class. Are we to cut the woman open in these cases? I say certainly not. She has hardly any chance of losing her life by the operation. But when we come to cases of extreme narrowing, where craniotomy cannot be performed without lacerating the parts, and where we find from examination that the operation would be so seriously dangerous to the woman that in all probability she would die under or after it, then Cæsarean section ought to be performed in preference to craniotomy. With regard to the mortality from craniotomy, the fair way to state it is this :—In the first two classes of cases I have mentioned the mortality from craniotomy is almost *nil*, while in cases of extreme narrowing it is not even 1 to 4, but 1 to 2. These are the cases where Cæsarean section comes in as an operation of selection. If, as in the case of the unfortunate woman mentioned by Dr. M'Clintock, the narrowing is of such a degree as $2\frac{1}{2}$ inches or 2 inches, craniotomy would be obviously almost certain death to her. Would she not have a better chance of life with Cæsarean section? As good a one almost as a woman who is cut for dropsy of the ovary. I think that in all cases where extreme narrowing exists, Cæsarean section should be an operation of selection and not one of *dernier ressort*. I have taught that in my class for years, and if I were to have such a case in my extern maternity, I should bring the woman into hospital, and at once, if permitted, perform Cæsarean section. Where you have a narrowing of the pelvis coming to two inches, I say that craniotomy is fraught with so great danger as involving almost certain death to the woman, and in such a case you should have no hesitation in performing Cæsarean section *at once*—you

should not procrastinate, but perform the operation the moment her labour sets in. If you do you will doubtless have success. In one case of great narrowing which Dr. Johnston and I have recorded, craniotomy was, after consultation, performed, the parts were lacerated, and immediate death was the result. If Cæsarean section had been performed at once we would probably have saved her life and that of her child. I do not deal at all with the question from a religious point of view. That is not my province. Of course when the child is known to be dead craniotomy may be performed without hesitation, but it is a terrible thing to have to kill the child in order to save the mother, though such a contingency very rarely occurs. In my opinion, when there exists extreme deformity, your best chance of saving both mother and child is to perform Cæsarean section as soon as labour sets in. It is fortunate, however, that in this country we have so few cases of such deformity. I do not know how long it is since I performed craniotomy, although I have 600 poor people delivered under my care every year. I believe, as I have said, that the reason why we have failed in this country with Cæsarean section is, because we have delayed the operation instead of performing it at once.

Dr. KINKEAD (in reply).—In comparing craniotomy with its alternatives I thought I had made it sufficiently clear that I excluded cases of very narrow pelvis. I have not dealt with the question from a religious point of view at all, but simply as a physiologist. We should judge of the operation in the same way as if the lives of two adults were in question, and we had to choose that proceeding which would give us the best assurance of saving the life of at least one of them. I thought I had excluded from the discussion those cases where the size of the pelvis is so great that no danger to the mother is involved in extracting the child by craniotomy. The average size, according to the several standard works, below which it is laid down that craniotomy should be performed, is three inches by one and a half. I have endeavoured to show that the limit below which that operation should be undertaken should be placed higher than that. Dr. MacSwiney has hit off pretty much what I intended to convey when he said that Cæsarean section should be undertaken before the uterine tissues have undergone change from long-continued labour and the mother has become exhausted. My impression had been that Cæsarean section was almost necessarily fatal to

the mother, but that impression was altered after I read a Paper by Dr. Harris in *The Medical Press*, giving an account of a case in which there was a debate as to what were sufficient signs of the death of the child—failure of the fœtal heart, or absence of the placental bruit; and as craniotomy was rejected and no one had the courage to perform Cæsarean section, the woman and her child died. It seems rather a disgrace to our profession that a woman and her child should have been thus left to die. If craniotomy was not performed it is quite plain that Cæsarean section ought to have been. If we investigate the question of mortality in Cæsarean section we find, especially from the writings of Harris, that where it is done early the mortality 'is infinitely below what is generally supposed to be the case. In fact, out of 32 cases that he has collected, the mortality was only 25 per cent. Spencer Wells says the mortality, with proper precautions, is only 7 per cent. Collins records 79 cases of craniotomy and 15 deaths; Dunne 10 cases with 5 deaths; and Johnston, in his last report, 28 cases with 7 deaths. If we could reduce the ratio to anything like that of ovariectomy, it would be our duty to perform Cæsarean section. I had hoped to hear some reasons adduced as to why that operation has been hitherto so fatal, but that, I think, has been overlooked. The question as to whether it would not be less fatal if it were performed in proper time and with proper precautions, instead of hurriedly, without antiseptic precautions and without waiting until the contraction of the uterus had ceased, has not been dealt with in the present discussion.

The Society adjourned.

Gynæcic Summary.

Cystic Myoma of the Uterus.—A case of this kind was brought before the Anatomical Society of Paris by Levrat. The patient was aged forty-seven: the tumour reached to three fingers' breadths from the xiphoid cartilage. On puncture, it yielded a brownish fluid of syrupy consistence. The patient died from pulmonary embolism. The tumour was found on autopsy to be almost capable of enucleation, but composed of fibres interlaced, not in layers. In the discussion which followed, M. Quinquaud made some remarks on the points of difference between the fluids contained in ovarian cysts and in cystic myomatous tumours of uterus. The fluid of

ovarian cysts contained paralbumen, which is not precipitated by acetic acid nor by sulphate of magnesia, and not completely by heat, but is precipitated by alcohol, in granular flocculi : also metalbumen, which is precipitated by alcohol, and can be redissolved in water : and hydropisine, which is precipitated by sulphate of magnesia, and redissolved in water. This fluid also contains often much cholesterine, and often epithelial cells, plain or deformed. The fluid of cystic myomata, on the contrary, contains neither paralbumen, metalbumen, nor hydropisine : nothing like epithelial cells is found in it, and it does not contain any great quantity of cholesterine. When a fluid drawn from an abdominal tumour contains a great quantity of cholesterine, that fact ought to lead to the diagnosis of an ovarian tumour. (*Progrès Médical*, Mars 20, 1880.)

The Ladies' New Sanitary Towel, for Childbed and Ordinary Use (patented). Southall Bros. and Barclay, Birmingham.

These towels consist of a pad of absorbent cotton wool (with a bandage attached, to keep it in position), rendered antiseptic by boracic acid, which is less irritating than other agents of the kind. This pad is intended to supersede the usual diaper after labour, and during the catamenial flow. The advantages claimed are, that this "towel" is soft, elastic, cleanly and comfortable, and can be burned after use. As the retail price is three shillings a dozen, and one of these "towels" can be worn longer than an ordinary diaper, it is believed that the cost will not much, if at all, exceed that of washing the napkins usually worn. To the profession the price is two shillings and threepence per dozen. There can be no doubt that the use of these towels in lying-in hospitals will remove a source of danger which the recent outbreak of puerperal fever at Queen Charlotte's Lying-in Hospital has proved to exist ; and in such diseases of the pelvic organs as are attended with fœtid or profuse discharges, we should anticipate increased comfort from their use.

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THE OBSTETRICAL JOURNAL

OF
GREAT BRITAIN AND IRELAND.

No. XCIII.—NOVEMBER 15, 1880.

Original Communications.

CLINICAL EXPERIENCES OF PUERPERAL FEVER.

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(Continued from page 592.)

THE symptoms and the allied question of diagnosis have now to be briefly discussed. Whole volumes have been written on the symptoms of puerperal fever, and the most intelligent, minute, careful, accurate, and exhaustive details have been therein recorded, by the most able obstetricians, beginning with Hippocrates and Avicenna, and ending—with whom? It may be doubted if any other disease has received such marked and elaborate attention from writers in every age. And yet there are points still worthy of record; clinical reports will probably never fail to awaken or sustain interest in the subject. To writers of systematic treatises I leave the pleasure and duty of recording fully the intricacies of the labyrinthine records. Suffice it for the present to dwell upon some purely clinical phenomena attendant on the malady. Dr. Lowder found from consultation of all the different authors on the subject, and from his own experience of puerperal fever, that the pathognomonic symptoms which were necessary to constitute the disease were very few, "Fever, intense pain in the head, and intense pain in the abdomen."* "The essential symptoms are pain and tenderness of the abdomen, with a rapid pulse."† Taking this as our text—I have to premise, that fever,

* Gooch, "Important Disease of Women," Fergusson, p. 1.
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† *Ibid.*
T T

intense pain in the head, and abdominal tenderness may be present without puerperal fever. I have seen *fear alone* produce these; tympanitis, temporary arrestment of lochia, lactation or milk fever, may all, from reflex action, induced by temporary disturbances, give rise to such symptoms.

Fever nowadays is determined by temperature, pulse, respiration, excretions, and secretions.

Till quite lately we have had comparatively little information regarding the temperature in the puerperal condition. The normal temperature of the puerperal woman is usually above what has heretofore been accepted as the mean temperature of health; (98·4 to 98·6), not, however, to any considerable degree. I have made frequent and careful observations, and am of opinion that 99° is as common, and more so, than 98° during the first few days after delivery. But in considering the value of such observations, considerable variations have to be kept in view, as regards the individual peculiarity, and the period of day at which the reading is made. It appears that in health we have a daily range of about 1° F. Davy, Gierse, Fröhle, Lichtenfels, Sydney Ringer, and Waters* are pretty much of one opinion in supporting this statement. Grünewalt estimates the average at 98·6 F., the maximum often exceeded 100·4 F., especially in constipation and milk fever; but the above-named observer considers all temperatures above 100° F., in lying-in women, to be very suspicious.† I am further inclined to believe that, while 99° is a common temperature during the first day, or two days, following parturition, the normal temperature is not afterwards exceeded, provided that the patient be in a perfectly satisfactory condition. I have mentioned that mental emotion alone is sufficient to give rise to an alarmingly high temperature. In October, 1876, I had a case which was highly illustrative of this. Mrs. Wm. N—— had been married about a year; her husband had been very unfortunate, so that being unable to support her properly, she had to return to her mother's house, when she expected to be confined. She was very sensitive, and suffered much mental distress from her circumstances. There had been considerable noise in the house after her accouchement, which greatly perturbed her. She was attended by a midwife. Labour (primiparous) was easy, natural, and lasted ten hours. About a week after delivery I visited the

* *British Medical Journal*, p. 802, Nov. 22, 1879.

† Wunderlich, "Medical Thermometry," p. 103.

patient, on the 6th of October. Her condition was: pulse 120, tongue slightly furred, no abdominal tenderness; no metritic enlargement, or pelvic infiltration could be discerned by external or internal examination; the lochia were sufficient, and the vagina and uterus in normal post-partum condition; bowels moved regularly. She was ordered five grains of quinine every three hours. On the 8th I found her cinchonized. Her condition was similar to that above recorded, except for a slight transient pain of two hours' duration on morning of 8th; the pain was in the right ovarian region, and at once relieved by poulticing. No abdominal distension; deep hard pressure was borne without flinching. The pulse ranged from 106 to 120; the temperature, which was not taken on the 6th, was 105·2. The breasts were almost empty. She was ordered green veratrum and digitalis, and a smaller dose of quinine. 9th. Much the same, but had been eating heartily. 11th. No record of temperature; pulse 110; less appetite; feels well. 18th. Been up; feels quite well. 20th. Normal pulse, 80. In my note-book I find the following recorded impression: "Nervous tension produced the febrile condition, and fear on feeling ill, aggravated the evil; distinctions from puerperal fever or septicæmia, want of all abnormal symptoms, and of derangement of lochial secretions and uterine system generally. Cause—mental agitation solely."

I endeavoured in this case to make out some septic origin, but failed utterly; the patient never presented the appearance of being seriously ill, and from her aspect I was perfectly astonished when I found so extraordinary a pulse and temperature. Two or three other cases are likewise noted in my case-book. "Mrs. David N—— three days after delivery got a fright, from one of her children falling and injuring itself. When I visited, I found the pulse at 1.30 P.M. (a few hours after the accident), 106° and temperature 102·4; at 8.45 pulse 96, temperature 102°. Next day her condition was normal. As illustrative of another phase of high temperature in the puerperal woman, may be mentioned one of many similar cases, familiar to every practitioner having care of such. I delivered Mrs. Wm. D—— on 14th of September, 1877. On the 16th her temperature was 103·2; the cause a retained clot, which, being expelled, the temperature fell almost immediately.

As a sample of the next most common cause—*i.e.*, milk fever, I cite the following: Mrs. C——; delivery on 9th of January, 1880; did well till 18th, when at 12 P.M. temperature was 103°

and pulse 120; at 2 A.M. on 19th, temperature 102° ; on 19th, temperature 101° , pulse 116; in evening, temperature 98.5 ; on the 20th, temperature 99° , pulse 80. The 21st showed a slight relapse, as at noon, temperature was 102.7 , pulse 116; at 11 P.M. temperature 100.6 , pulse 112. Next day both normal, and continued so. Case ended in mastitis and small abscess. I have said that the recorded heat varies at different periods of the day; this point is worthy of attention. A lady I attended on the 24th of November, 1879, had a threatening of metritis after rapid labour and placental retention. The general symptoms showed themselves two days after delivery.

	Hour.		Temp.		Pulse.
26th Nov.	8.30 A.M.	...	97°	...	68
	1. 0 P.M.	...	98°	...	72
	5.30 "	...	100°	...	76
	7.30 "	...	101°	...	76
	8.30 "	...	99.5	...	78
	10.40 "	...	100.1	...	not noted.
	12.10 A.M.	...	99.5	...	78

In this case there was only a very slight threatening, indicated by enlarged uterus, tender to touch, and slightly arrested lochial flow. The symptoms soon yielded to treatment.

To generalise we may state with fair accuracy that—

1. A *persistent* temperature of 100° F., or over, if present without any reasonable cause—*e.g.*, milk fever, retained secundines, anxiety, &c.—occurring within the first three days after delivery, indicates danger.

2. A marked evening exacerbation, with or without other clear febrile symptoms, is probably due to some form of puerperal fever. In the typhoid variety of true puerperal fever the temperature rises at night and again in the early morning, falls during the early hours after midnight, 3 to 5, rising from 5 to 8 A.M. (these hours are not, however, invariable), and falls through the day. For a description of such a class of diseases I beg to refer my readers to Blundell's "*Hidrosis or Hidrotic Fever*," more especially to his "*malignant*" variety, the "*acute*," and the "*lingering*."*

3. Septicæmia following delivery is attended by a gradual rise of temperature. In the evening the exacerbations are marked, the range being at times extremely high, 105.5 and more. I have not

* "*Obstetric Medicine*," pp. 591, 600.

observed such an extreme case as that mentioned by Dr. Henry Gervis, who has recorded one, which eventually terminated fatally, with a temperature of 107° .† Other observers have also noted this extreme heat.

4. Peritonitis is accompanied by a sudden rise of temperature, frequently preceded by a chill. After one or more rigors, the temperature, except in very severe cases of general peritonitis, or shortly before death, rarely exceeds 104° .

5. Metritis, complicating fever, or by itself, shows a temperature of 103° – 104° , despite a relatively slow pulse. Unless we find an explanation in the great nervous depression induced by the acute concentrated pain it is difficult to understand why this should be, but as a matter of fact such is the case.

6. Uterine phlebitis (rare with fever) and pyæmia have varying temperatures, depending on the intensity of the affection. Each rigor is usually followed by an increase.

7. Ante-partum fever has a temperature two or three degrees above normal (100° – 101°); when parturition is completed there is a well marked persistent rise of the septicæmic variety, so that in a few hours there may be an increase of several degrees.

8. To sum up—Danger is most to be apprehended when the temperature, immediately after delivery, rises and continues to increase steadily; when there is no evident cause for preternatural heat; when other symptoms of a grave character follow the high temperature very quickly, when there are few or no remissions, and the morning and evening heat has little variation, and when, despite the high temperature, the body and extremities are covered with a profuse clammy perspiration.

9. In estimating the value of the recorded temperatures, due allowance must be made for the peculiar idiosyncrasies of each patient (an important point with parturient females), the relative mental constitutions, the influence of perturbation, the time of observation, the general surroundings as regards ventilation, crowding, nursing, &c.

10. Although an early, high, persistent temperature is manifested, if the relative frequency of pulse and respiration is slow, if the secretions and excretions are moderately plentiful, and if there is also an absence of definite local symptoms, a fairly favourable prognosis may be formed.

* Transactions of the Obstetrical Society of London," vol. xviii., pp. 160 173.

I have ventured on prolixity on this point, as I judge the thermometer to be by far our most valuable aid in estimating the merits of puerperal cases in their early development. Exceptions to these statements I have advanced will certainly occur, as it is commonly observed that one complication not infrequently follows or masks another, yet, in the main, I venture to think they are strictly accurate.

The pulse, which formerly was looked on as the most important guide to a satisfactory diagnosis, still affords us very valuable criteria. Epitomizing as formerly, we enunciate broadly—

1. A pulse above 100 before labour indicates ante-partum mischief; a pulse of 110 rarely if ever is seen without some subsequent fever.

2. An early pulse—*i.e.*, within the first three days—of 120–140 bodes ill for the patient.

3. The pulse of uncomplicated, or almost uncomplicated, fever ranges from 110 to 130, and perhaps 160 at times; the pulse of metritis is slow, from 92 to 115; that of septicæmia is soon 120, and quickly rises to 160, or even more; peritonitis is accompanied by the peculiar wiry pulse of 120 or upwards.

4. The character varies, so that in metritis we have a full bounding pulse; in septicæmia a weak, fluttering, irritable beat; and in hidrotic fever a soft compressible feeling.

5. Much weight must be placed on the allied symptom of temperature; though the pulse remains high, if the temperature falls either speedily, or even gradually, a favourable issue may be looked for, except, of course, when this speedy fall occurs *in articulo mortis*.

6. It is wise to remember that a fall of pulse may not evince improvement, as it may be solely owing to the temporary influence of vascular sedatives, or to collapse.

7. When the pulse is reduced to 80, *and remains so for twenty-four hours*, the patient is, in nine out of ten cases, safe.

8. Immediately before dissolution there is generally a rapid rise in the pulse, whatever the former character has been, so that we may have 180 beats per minute, or even more.

Respiration is not so useful as the above-mentioned data, as it is more uncertain in its rapidity—*e.g.*, with pulse 84 and temperature 98·5 we may have 20 respirations per minute; with pulse 132, temperature 104·5, the respiration may be only 22. However, considered adjunctively with the preceding, we may learn

much from a consideration of it. At the very initiation of fever, the respiration is usually increased ; it is hurried, short, gasping, catching, insufficient. From its character we may partly determine the variety of the complication attending the fever ; thus in abdominal affections it is almost entirely thoracic ; in septicæmia it is deep, gradual sighing ; as death approaches it may become exceedingly quickened—55. The respiration is greatly subject to the will ; so that a nervous woman, *cæteris paribus*, breathes more quickly than one who is not so ; hence the fallacy of trusting to this symptom becomes plain, and if there is no other indication of febrile disorder we may dismiss all fear for our patient's safety.

The excretions and secretions for the sake of convenience will be considered conjointly. Classifying those as of the skin, the glands, and the digestive and uterine, we observe—

The skin may be hot and dry, it is more often moist ; general sweats may break out ; these if cold and clammy augur ill for the patient. I have already referred to Blundell ;* he says, regarding what he calls hidrotic fever: "There is more or less disposition in this disease to sweats and heats combined ; and this constitutes a very characteristic symptom. These sweats are at first, I think, more fluid, but they afterwards become more clammy, especially towards the close of the disease—during the last few hours. In some cases we find them to be sparing, while in others, especially in the more malignant varieties, they are surprisingly profuse." "They may be described as *sweats of distress* in the system."

The mammary glands suffer from total or partial arrest of their function ; in fact, I have been accustomed to look upon this symptom as one of very great importance. I have seen a few cases in which this did not hold true ; but I believe these to be very exceptional. With the exception of one case, the free return of milk invariably signalized the patient's recovery.

The renal secretion is lessened ; the urine is of high colour ; albumen is often to be found ; in one case I attended there was total suppression of urine.

Saliva is scanty ; the appearance of the tongue is red and glossy at the tip and edges, with white fur in the centre ; or red in the middle, between two parallel streaks of yellowish brown ; in the worst cases, the tongue is hard, dry, with cracks, it is red with a dark brown fur, and many sordes are present on the angles of the mouth and teeth.

* *I ec. cit.*

Diarrhœa is almost invariably present ; but the character of the evacuations is not always alike. The stools may be dark, bilious, mucous ; or slimy, light-coloured, and very offensive in smell ; or again, they appear like dirty water, with floating shreds of membranous material intermingled. In some cases the odour is insufferable.

The uterine excretions are invariably altered. I am aware that it has been stated that, in some cases of puerperal fever, the lochia have been of normal quality and quantity ; but my patient and minute investigations have demonstrated to me the incorrectness of this. As to quantity, there is frequently partial, occasionally total cessation of the discharges ; in a few cases, which I think were exceptional, I have observed an increased flow. The quality is *always* different from that of health ; a peculiar, heavy, fetid odour, which is difficult to describe in words, but easy to recognize, is a very characteristic sign ; often the colour is darkened ; the fluid is frequently thinner than normal. After partial recovery clotted blood is sometimes discharged ; this circumstance is not to be considered as the cause of the fever, but as the consequence of a formerly non-contractile uterus which has recovered, to some extent, its normal condition. In some cases of a protracted nature thin pus was discharged. I am of opinion that in the majority of cases the secretions are diminished early, and after the establishment of the disease, or consequent on the intelligent use of remedies, they are more or less restored, even although the patient is not otherwise improved. I may add, that temporary cases of fever originated by retention of clots or secundines are not considered in the foregoing.

As to other symptoms—so very profuse have been the contributions from the dawn of medical science till now, and so excellently have these symptoms been described by Copland, Tweedie, Gooch, Fergusson, Churchill, Clarke, Hey, Tonnellè, Malouin, Murphy, &c. &c., that it is quite impossible to add to the written knowledge we possess, with advantage to the subject or profit to ourselves. I would, therefore, refer to these and other systematic authors for minute details. Yet, a very few prominent symptoms deserve a word in passing. Tympanitis usually accompanies the fever ; it may precede or succeed abdominal pain, or be present without the pain. Pain may be diffuse or localized ; in some cases it is felt in the mesial line over the uterus ; more frequently it is confined to one iliac region, most often the left ; the epigastrium is not infrequently the primary seat of pain. Pain.

may be entirely wanting, or persistent, or spasmodic—the latter most usual in my experience ; sudden metastasis may occur.

Rigors may be absent ; I believe they are often so slight as to escape notice ; there is usually but one pronounced rigor, which occurs in the early morning or late at night. I think the rigor is solely owing to perversion of the nervous supply, owing to the disturbed circulation, and does not mark the invasion, but rather the development of the disease. Many recurrent rigors are, except in true pyæmia, never met with.

The patient sleeps not, or very little, and that unsoundly. Delirium is but rarely evinced ; when present it is of a low typhoid character. As in typhus the patient usually lies on her back. I have seldom seen the legs strongly flexed as is commonly depicted in text-books ; the voluntary turning of a patient from her back to her side is invariably a favourable sign. Thirst, and loss of appetite, are always met with. So much stress have I laid on the latter that I have, for my own guidance, formed an aphorism on puerperal females—"A hungry woman a healthy woman."

Treatment.—The indications are, to lower temperature and pulse ; to procure rest and freedom from pain ; to support the strength ; to establish, control, or check secretions and excretions. Treatment is general and local. For fulfilling the general indications I have used quinine, veratrum viride, alcohol, opium, nitrate of potash, sulphites, mercury, carbolic acid, &c. I have great faith in quinine ; but to derive benefit we must use it very freely. I generally ordered ten grains every four hours, increasing the dose if there was no appreciable fall of temperature ; within twenty-four hours I have given upwards of a drachm and a half ; after the temperature fell I reduced the dose to four or five grains every three or four hours. Given cautiously, I have not seen undue cinchonism ; and, in fact, the appearance of the systemic affection, by the drug, was generally a favourable sign, indicating a power of vitality in the patient. I have ordered quinine in sixteen-grain doses every three hours per rectum, when the irritable state of the stomach prevented its exhibition otherwise. It is held by some that quinine is most useful in puerperal suppurative affections, and that in ichoræmic cases it is not to be depended on : with all due respect, I submit that, if given in different ways, it is equally satisfactory in both. In the former, small repeated doses of, say, two grains every three or four hours, yield very beneficial results ; in the latter, if we would see its power in lowering pulse and temperature, we must give the drug fearlessly. Opium was almost invariably combined

with quinine. Salicylate of soda or salicylic acid may in certain cases be substituted for the sulphate of quinine: the former has been serviceable in my experience.

It gives me much pleasure to acknowledge my indebtedness to Dr. Fordyce Barker* for his able advocacy of veratrum viride in the treatment of puerperal fever. I have only prescribed it for four or five cases, but the results in these have been very gratifying. I have used the drug even more liberally than is suggested by Barker. As this remedy is not, so far as I am aware, held in such repute as it deserves, I may record some extracts from my case-book relative to its action:—

A patient, suffering from puerperal pyæmia, at 2.30 P.M. had pulse 112; at 6.15 she took ℥xv of tincture of green veratrum, with half an ounce of brandy; at 6.40 the pulse was 100–108; at 7.30 she had ℥x; and at 9.30 the pulse was 100; she then had other ten minims, combined with ℥xij of liquor morph. hydrochlorat.; at 11 P.M. the pulse was 88–92, another dose was then given; at 8.15 A.M. pulse 88; it did not seem to bring it lower, and ℥ij was prescribed every hour; through the day the pulse stood about 80. The patient improved, but eventually became worse; the pyæmia was held in check, but after an illness of six days she sank, evidently from exhaustion. I have seen the pulse fall from 140 to 100 within four and a quarter hours consequent on the administration of veratrum. In some cases a smaller dose will suffice; five drops insuring the fall, and from one to two per hour retaining the low pulse. Professor Barker suggests that, if vomiting comes on, the drug should be suspended till the pulse begins to rise, and then a drop dose may be given to commence with; also that, if the veratrum has been taken alone, we should use syrup of ginger as a vehicle; and he adds that the combined administration of alcohol increases its efficacy. The quick pulse of exhaustion is quite unaffected by veratrum; when asthenic symptoms predominate, or when there is pallor of the extremities, or profuse perspiration the drug is undoubtedly contra-indicated. Aconite and digitalis, especially the former, are likewise useful; but, for my own part, I prefer the veratrum; to derive true benefit from it we must be certain that the preparation is trustworthy; and the action must not only be established, but maintained.

(To be continued.)

* *Op. cit.* pp. 402–501.

SHORT PAPERS ON SOME COMMON DISEASES IN YOUNG CHILDREN.

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III. TUMOURS AND SWELLINGS ABOUT THE HEAD AND NECK IN YOUNG INFANTS.

IN the following Paper I purpose drawing attention to some tumours and swellings which are met with in young infants. It is the accoucheur who first sees them, and who has to advise as to their earliest treatment. The subject would therefore seem peculiarly fitted for a journal whose columns are devoted to obstetric medicine. I shall include congenital as well as accidental tumours, not because there is any direct connection between them, but because they are intimately associated in practice.

CEPHALILEMATOMA (*syn.* : Blood-tumour of the scalp—Ecchymoma cranii) is not of very common occurrence. It has been variously stated to occur once in 200–300 births. It is essentially a blood-tumour, and is due to extravasation from ruptured small vessels, or from one larger one. Authors divide them into two classes—those which are situated beneath the pericranium; and those in which the extravasation has taken place into the cellular tissue of the scalp, outside the pericranium. Hence the terms *Cephalhæmatoma epicraniale* and *C. subaponeuroticum*. Their common seat is on the parietal bone, on one or other side, sometimes on both sides. Very occasionally they occur on the occipital, or on the frontal bone.

Causation.—There can be little doubt that they are due to injury of the blood-vessels of the scalp during the birth; it may be from pressure sustained by the head while passing through a narrow pelvis, or in consequence of the use of the forceps, or from a blow on the head immediately or shortly after birth. Little can be done in the way of prophylaxis in the first-named cause, but as regards the forceps practitioners will do well to bear this injury in mind in applying them, and doubtless they do so; there are many ways of preventing undue pressure by the forceps, even while the traction power is in no way interfered with. Blows on the head immediately after birth may be brought on in various ways. I remember seeing one case—rather a large one—which resulted from a fall on to the floor, in conse-

quence of the too rapid birth of the child before help could be obtained, and before the mother could lie down on her bed.

Other causes, as well as another variety of the disease, have been mentioned. I refer to the blood-tumours over the seat of a fissured fracture of the bone, which corresponds to a collection of blood immediately on the interior surface, between the bone and the dura mater. Thus it will be seen that this tumour corresponds to what in an adult would be called Pott's "puffy tumour." I believe its mode of production, no less than the treatment it requires, also correspond, and that it thus belongs to a totally different category of tumour to those now under consideration.

Symptoms.—The tumour is sharply circumscribed; more or less circular in shape; tense and fluctuating; it is most commonly seated on the parietal bone, near the eminence; there are no brain symptoms; the superimposed skin is at first quite normal. On examining such a tumour with the finger, it will generally be found circumscribed by a ridge of thickened bone: this causes (what appears to be) a depression, so that the tumour almost seems to come from within the cranium. The thickening is simply due to inflammation changes in the pericranium along the line where it again comes in contact with the bone. I have already referred to the epicranial and the subaponeurotic varieties: it is in the latter cases that we find this thickened rim of periosteal thickening; and it is a sign of great diagnostic value, not only between the other tumours of the skull, but also between the two kinds of blood-tumours just referred to.

The epicranial variety is less clearly margined than the subaponeurotic, and it is easily understood why this should be so; for in the one case the blood is beneath the pericranium, which it only separates from the bone with comparative difficulty—hence a sharply margined, tense swelling. Moreover, these tumours never transgress the lines of the sutures, for the pericranium, as is well known, is very intimately adherent at these points. In the epicranial variety the blood has oozed into the abundant cellular tissue of the scalp, and may extend indefinitely—immediately over or beyond the line of sutures. It is more puffy, the skin is sometimes ecchymosed, and then there is no periosteal thickening or margin, as in the former case.

Treatment.—In either variety the treatment is practically the same. For the most part the hæmorrhage ceases spontaneously before the infant comes under observation. In a few cases it is

obviously increasing, and then compression or an ice-bag is indicated. As a rule, the effused blood is quickly absorbed, a little stimulating lotion being all that is required. I feel doubtful whether the lotion is really necessary : it pleases the child's friends, however, and from this point of view it may be worth trying. Occasionally, if the absorption does not go on sufficiently fast, a little mercurial ointment may be smeared on, and repeated two or three times. In a small minority of cases the extravasated blood suppurates ; the skin becomes hot, red, and painful ; and unmistakable symptoms of an abscess show themselves in due course and sequence. I have seen absorption take place even at this stage, without any ill effects to the child. Otherwise, a free incision may be made into the tumour, and its contents evacuated. As a rule, the periosteal thickening disappears, and the wound heals, leaving scarcely any traces of its former existence: I have, however, seen one case (double and symmetrical) in which the blood, instead of being absorbed, organized and finally ossified, so that a permanent thickening of the two parietals, to the extent of half or three-quarters of an inch in depth, remained behind.

Cephalhæmatoma proper must be distinguished from caput succedaneum, a condition too well known to require more than mere mention. This latter condition is a mechanical one, due to the dependent position of the child's head during a tedious labour, and to the lengthened pressure which is exerted on the foetus by the uterus owing to a rigid and unyielding os uteri. The condition is one of local œdema of the cellular tissue of the scalp, with or without a little hæmorrhage into it. It is usually situated at the vertex, but it may occur elsewhere, or involve the greater part of the scalp. It is of course apparent at the time of the birth ; and in this particular therefore it may differ from the cephalhæmatoma, for this latter is seldom very noticeable until after some hours, and not infrequently only attains its full size on the second or even the third day. Little or no treatment is required. As the infant's circulation becomes established the exudation material (a lowly organized form of serum) is quickly absorbed. A little spirit lotion may be applied with a view to stimulate the part, or it may be gently rubbed with the palm of the hand.

ENCEPHALOCELE (*syn.*: Congenital hernia cerebri).—This form of tumour is fortunately very rare : it is chiefly interesting to the practitioner on account of its non-amenability to treatment, and

the undesirability therefore of operative interference. It is on this account, no less than for purposes of prognosis, important to distinguish between it and meningoccele (to be presently described) and cephalhæmatoma and other swellings of the scalp.

Morbid Anatomy.—Encephalocele depends on early hydrocephalus of the ventricles, the distended condition of which in the first place interferes with the normal ossification of the cranial bones, and in the second, causes the brain and its membranes to protrude in the form of a rounded, more or less elastic, skin-covered tumour. It invariably occurs along the line of one or other of the sutures, and most commonly at the occipital protuberance. The posterior or occipital portion of this bone, as will be remembered, originally consists of four pieces, which usually unite at an early period of foetal life, the point of junction corresponding with the protuberance. There must be some reason why the deformity should occur at this point more frequently than elsewhere: but it is not very obvious. I am personally inclined to believe that it is due to the dependent position of the head. The hernia may, however, occur at other places, either along the base or the convexity of the skull, but always at one of the sutures. Among the places mentioned are the posterior fontanelle, the root of the nose, and at the forepart of the base. The cases are too rare to need any lengthened notice in a Paper of this kind.

Diagnosis.—In most cases the diagnosis is sufficiently obvious, in a few difficult, not to say impossible. The difficult cases are those which are complicated by a meningoccele, and those in which the tumour is small, and about which there is some uncertainty as to its being congenital. These latter very often occur at the root of the nose, or at the inner angle of the orbit: they closely resemble a sebaceous or a dermoid cyst.

The ordinary tumours vary in size; they may be as small as a fist, or as large as an infant's head, generally pedunculated and with a small pedicle; they may nevertheless be sessile. They are not transparent; sometimes they pulsate, and generally swell up and become tense whenever the child cries. On pressing them, brain symptoms manifest themselves. An encephalocele must necessarily be congenital and always situated along the line of a suture.

Symptoms.—At first there is often no very apparent effect of the tumour on the child; but it is very doubtful whether this absence

of brain symptoms would continue if the children lived, which fortunately they do not as a rule. They die for the most part with symptoms of inflammation : it would seem as if the weight of the external tumour pulled on that part of the brain which still continues within the cranium, causing laceration even, and thus giving rise to encephalitis. In other cases the tumour enlarges, and the integuments become thinned and finally rupture.

The *treatment* consists in protecting the tumour from external injury : it must also be supported in order to prevent its dragging on the rest of the brain. This may best be accomplished by a soft wool or leather cap, fitting well to the child's head, without being tight.

MENINGOCELE is a protrusion of the meninges of the brain through the distended and altered tissue of the cranium, containing subarachnoid fluid : like encephalocele, it is covered by the skin of the scalp. It differs in its *morbid anatomy* from the foregoing by not containing any brain tissue. It occurs, however, in exactly the same positions—along the lines of sutures. A meningocele is transparent, like a hydrocele ; unlike an encephalocele, it never pulsates, and it can generally be more or less emptied or modified by pressure if long continued, often without producing any very obvious symptoms : occasionally, however, the pedicle and the hole of communication are so small that even long-continued pressure fails to lessen the size. It is always congenital ; and it rarely shows any tendency to suppurate, differing in this last particular from some of the blood-tumours.

Treatment.—The results of operative interference have not hitherto been very encouraging, although a few successful cases are on record. The cases most suited for this kind of treatment are those with a very narrow pedicle ; for then there is a possibility of the cranial opening becoming closed by plastic inflammation, after which the external tumour could safely be removed. If the tumour appears to be growing larger, or if the skin over it shows signs of inflammation or sloughing, the surgeon is almost called upon to make an effort to save the child by drawing off some of the fluid through a fine aspirator needle : he might also inject a little of Moreton's iodo-glycerine solution, in the hope of being able to cure the disease radically. Some surgeons have tried tying the pedicle, but without much encouragement. The smaller tumours may be left alone, means being taken to protect them from injury, and at the same time to afford some support—not only thus to pre-

vent traction on the parts within, but also to try and prevent their growing larger.

In summarizing the chief points of interest to the practitioner, the following are to be remembered :—All tumours depending on some malformation are congenital, and they occur at the median lines along the sutures. They may or may not pulsate ; and there may or may not be other signs of brain defect besides the tumour ; and they may or may not be transparent. Blood-tumours, on the other hand, generally occur over the parietal bones : they never pulsate ; they are not obvious at birth, and are not dependent on congenital malformations, and there is generally a history of injury or of violence of some kind.

SPINA BIFIDA is the result of malformation of the spinal cord and spinal column. It presents itself as a tumour, along the median line of the spine, and is of course congenital.

Mutatis mutandis, the condition resembles closely that just described as occurring in the head. There is a deficiency of the posterior part of the arches of the affected vertebræ : through this opening the distended cord, or its membranes, or both, prolapse in the form of a rounded tumour covered by the integuments. It would seem probable that an excess of fluid in the central canal of the cord, or in the subarachnoid space, unduly distends the vertebral canal, and thus prevents, or interferes with, its complete development. It is interesting to observe that spina bifida is most common in that part of the spinal column in which the progress of development is longest delayed, that is, in its lower part. Thus spina bifida in the cervical region is very uncommon, while it is often met with in the lumbo-sacral region.

The cases in which the primary lesion is a dilatation of the central canal of the cord corresponds very accurately with encephalocele, while a meningocele is the analogue of cases in which only the membranes of the cord are distended by an excess of subarachnoid fluid. In both cases the integuments are stretched over the tumour, and are more or less thinned in consequence.

Treatment.—Many of the cases, if small and stationary, are better left alone, especially if there are no symptoms of nerve derangements in the lower limbs or sphincters. In some cases, owing to continued distension, the integuments become very much thinned, and threaten rupture : in such cases aspiration with a fine needle may be tried, and a little iodo-glycerine solution (Moreton's) injected ; but the prospect of a successful issue is not

very promising. It must, nevertheless, be stated that this treatment offers the best chance of eradicating the tumour. If spontaneous rupture occur, death almost invariably follows within a few hours, or days at the most. On the other hand, there is now a goodly number of cases treated by injection, which has proved quite successful. Of all methods of treatment hitherto proposed, this one has, in my opinion, been most successful, and it is now about the only plan of treatment which surgeons care to undertake. If the tumour involve the spinal cord, as well as the membranes, prognosis is very gloomy; while if the membranes alone are implicated, there just is the chance that treatment may prove radically curative. Under any circumstances, a protective form of bandage should at once be applied: for these tumours are obviously very much exposed to injury, and everything must therefore be done to protect them from it. One of the most universally applicable is a moulded guttapercha covering, well padded with cotton wool.

CYSTIC TUMOUR OF THE NECK (*syn.*: Cystic hygroma—Hydrocele of the neck.)—This disease is occasionally met with in the neck of new-born infants. It may occur on one side, or it may surround the neck like a bolster, and appear on both sides.

Symptoms.—It usually appears as a rounded swelling of variable size, or its surface may be very uneven and lobed, suggesting a multilocular condition, which indeed is the commoner variety. When very large, it may displace the trachea to one or other side, or may cause pressure on it, with difficulty of respiration. The skin is often quite normal over the tumour, or it may be streaked by enlarged veins; the tumour is freely movable. When the fluid is in excess of the solid element, and especially in unilocular cysts, a certain amount of transparency is present. But when the solid element is in excess, and in multilocular tumours, no such transparency can be detected. The general health at first is seldom affected by the presence of the tumour, but at later stages marasmus and wasting may set in, in consequence of changes taking place spontaneously in the growth.

Pathology.—The exact starting-point of these tumours has never been very accurately made out. They are thought to be unnatural dilatations of the cellular spaces which normally exist in embryonic tissue. These tumours are always deeply seated, sometimes appearing to be connected with the tips of the transverse processes of the vertebræ in this region. The solid tissue,

examined under the microscope, is found to consist of delicate reticular connective tissue, in which are contained small collections of fluid: the tissue is highly nucleated.

Treatment.—This will depend a little on the age of the patient. In very young infants I believe it is best to leave the tumour alone. After three or four months, if there is no appearance of diminution, either an injection of iodine may be tried or the introduction of a fine seton, as recommended by Mr. Thomas Smith. I have had success with both methods of treatment. Sometimes the tumours get well spontaneously, either with or without the occurrence of inflammatory symptoms. I recently had a case under care where the tumour appeared to be subsiding spontaneously. An attack of scarlet fever, however, supervened, and the tumour rapidly became larger than ever. After the fever had passed, and when convalescence was fully established, the tumour again subsided, and then disappeared altogether. There are few cases in which any radical operation is desirable.

NEVOID GROWTHS.—These may present themselves as the ordinary *nævi*—mother's mark—or as degenerate, more or less cystic growths, in which the blood circulation appears to have long been arrested. The ordinary *nævus* is well known; unless of inordinate size, or on account of its position, it seldom gives rise to much anxiety. There is no difficulty about the diagnosis or treatment. In the deeper, entirely subcutaneous *nævi* there is more difficulty in diagnosis. It seems probable that these growths at some period of their existence resemble other *nævi*, and consist mainly of enlarged blood-vessels. It may be surmised that from some cause or other the circulation becomes interfered with or arrested. Then one of two results may occur: the tumour may shrivel up, or the blood may undergo regressive changes, and give rise to cystic enlargement of the spaces in which it is enlarged. I have examined two or three such tumours, and the above appears to be the explanation of what takes place. They consist of a number of individual cysts, held together by an intervening, tough fibrous structure; the contained fluid varies in colour from brown to white. They are very adherent to the surrounding tissues, with which, indeed, they appear to be directly continuous. They feel not unlike the classical "bunch of earth-worms" when the cysts are small or almost absent. When the cysts are large the tumour assumes a lobular outline, resembling a fatty tumour. The superjacent skin is adherent, and occasion-

ally, on close examination, remnants of a *naevus* may be found : thus I have more than once seen minute cysts on the surface, or small wart-like excrescences ; their presence would of course be of great importance in a question of diagnosis in such a case. Removal with the knife is the best treatment.

CONGENITAL FATTY TUMOURS.—Fatty tumours are occasionally met with about the neck. They are very soft, and appear to fluctuate ; this sensation, however, is very misleading. These tumours, as a rule, do not present quite the same characters as in adults ; they are not so distinctly lobulated, and are softer ; neither are they so clearly encapsuled. I recently removed one from the nape of the neck in which there was no capsule at all ; the growth appeared to be directly continuous with the subcutaneous fat ; the colour was unusually white, and the tissue exceedingly delicate ; it appeared like a localized thickening of the fatty layer. The only treatment for this kind of tumour is excision. The operation need not be undertaken until some months after birth, unless it is rapidly increasing in size, which in my own experience is a very uncommon occurrence. The case alluded to above was watched until the child was nearly a year old. The tumour grew a little, but very slowly.

DERMOID CYST OF THE ORBIT.—This is probably the commonest form of congenital tumour. It occurs for the most part as a small round tumour, about the size of a pea, near the outer angle of the orbit ; moving freely about beneath the finger when manipulated : firm to the touch, and quite painless ; the skin over it is rarely affected. It is always found close to the bone, which is not infrequently pitted, and sometimes even perforated. Sometimes they are attached by a long stalk, which would appear to account for their mobility ; at other times they are adherent to the (?) periosteum.

Although most frequent at the above position, they may occur anywhere else about the head. Thus I have removed one from the middle of the upper eyelid, and one also from behind the ear. I have also seen one growing over the temporal region well above and behind the orbit. When cut into, they are found to contain a white sebum, which consists of fat, broken down epithelioid elements, and hairs. The containing membrane consists of a structure resembling skin.

Treatment.—Although they may remain stationary for years without harm, yet they are liable at any time to inflame or take on

growth either spontaneously or as the result of injury. Under these circumstances they should always be removed during infancy ; and care must be taken to remove the whole of the cyst-wall, or the tumours will inevitably recur.

CONGENITAL TUMOUR OF THE STERNO-MASTOID MUSCLE.—This is a very different tumour from those above described. By some authors it is spoken of as *induration* of the muscle. It is hardly visible to the eye, and is most frequently discovered while handling the infant's neck during washing by its hardness. It occurs on either side, but more commonly on the right side, as a hard, indurated mass, varying in size from a filbert to a walnut. The lower half of the muscle is most generally affected. The swelling is not painful. It causes some slight degree of wryneck, and cases of the kind have been mistaken for and described as congenital wryneck.

Causation.—For a time it was sought to associate this condition with some mechanical injury sustained accidentally during parturition ; but this view has, I think, been given up, as cases have occurred in which no such connection could possibly be traced. Rupture of some fibres of the sterno-mastoid muscle certainly seemed to be a very plausible and probable mode of accounting for it. Syphilis has also been blamed, but without sufficient evidence. Microscopically, the growth consists of a little fibrous tissue—there is an absence of blood extravasation, such as would hardly fail to be observed if injury were the cause.

Treatment.—Counter-irritation answers best. The swelling may be painted twice a week with a little weak solution of iodine. In the course of a few weeks the tumours usually disappear, leaving no traces or ill effects behind.

The above constitute the most important of the congenital tumours met with in these parts in young infants. I have not attempted an exhaustive account of them, for that would take us beyond the scope of this communication. Some of the tumours are met with in other parts of the body than the head and neck. Thus hygromata, fatty tumours, and nævoid structure may occur in many other places ; the two latter indeed in almost all regions. When, however, this is the case their diagnosis often becomes less difficult and, I may almost say, less important. But when there is a chance of any tumour communicating with the ventricular cavity of the brain, it will readily be perceived that, in view of

treatment, an accurate diagnosis is essentially necessary. It is on this account that a careful and contrasted study of the various possibilities ought to be made, in diagnosing obscure cases of congenital tumour in these regions, and hence I venture to hope that the above connected summary may prove acceptable to the busy practitioner.

CASE OF EXTRA-UTERINE FŒTATION.*

By G. H. PERCIVAL, M.B. Lond.

ELIZABETH NORRIS, æt. thirty-six, married, was admitted into the Northampton General Infirmary on Jan. 24, 1880, under the care of Dr. Buszard.

No family history, and no previous illness bearing on the case in question. Has had five children, three of whom are living. Menses ceased on Oct. 6, 1878, and subsequently she believed herself to be pregnant. At the end of the seventh month of her pregnancy a large quantity of fluid came away, but there were no labour pains, nor any untoward symptom. In the middle of July, 1879, labour pains commenced, and a medical man was summoned, who gave her some medicine and said she would be confined in the course of a few hours. The pains, after lasting about twenty-four hours, during which time she was frequently sick, ceased, and after resting in bed for three days she resumed her ordinary occupation. This went on until Christmas, 1879, five months after her expected confinement, during which period her appetite was good, there was no failing of energy and no loss in either strength or weight; she also noticed no diminution in the size of the swelling. After this period, however, she began to emaciate very rapidly, her bowels became constipated, her appetite failed, she lost all energy, and was at last compelled to take to her bed; she also noticed that the swelling became somewhat smaller and sank more into the pelvis.

On admission she presented an extreme degree of emaciation, her face was hollow and sunken, the muscles throughout the body were greatly emaciated, skin wrinkled and in folds, and face and hands covered with a cold clammy perspiration. The breasts were

* Paper read at Meeting of South Midland Branch of British Medical Association at Northampton.

sunken and flaccid. On physical examination the thoracic organs were found to be healthy. There was no enlargement of the spleen, and the liver dulness was normal. Urine acid sp. gr. 1021, and contained neither albumen nor sugar. Tongue coated with a whitish fur, bowels constipated, appetite bad. Temp. 99—R. normal. Pulse 72, feeble and compressible. Os uteri soft and in normal position; uterine sound gave a length of $3\frac{1}{4}$ inches. No leucorrhœa.

A large swelling was found to occupy almost the whole of the abdominal cavity, reaching into the right and left sides in an equal degree. Above, it extended $1\frac{1}{2}$ to 2 inches above the umbilicus, following a curved line which extended on either side to the lower costal cartilages, and passing through the lower part of the lumbar and the upper part of the iliac regions was lost on the top of the pubis. On making firm pressure, hard projecting knobs could be felt in different parts, most readily on the left side and over the centre of the tumour. The whole area was not dull on percussion, but gave a somewhat resonant note throughout. There was no history of any rigors during the progress of the case.

The day after admission (January 25), an exploratory needle was inserted into the tumour below and to the left of the umbilicus, coming in contact with the hard substance before mentioned: nothing whatever escaped.

Dr. Buszard considered the case to be one of extra-uterine fœtation, and a consultation was held as to the advisability of an operation. Opinions varied, as to whether it was extra-uterine fœtation, with decomposition of the contents of the cyst, or some deep malignant tumour growing behind and pushing forward the intestines: the case was on the whole considered too doubtful for an operation to be undertaken without further evidence. On the one hand, the history, the size and shape of the tumour, and the hard substances felt in different parts, pointed to an extra-uterine fœtation; but on the other hand it was considered extremely unlikely that decomposition to such an extent as to produce a resonant tumour could occur without some rise in pulse and temperature, or some history of rigors, while the woman's appearance also seemed much in favour of cancer.

On January 29, another exploratory needle was inserted on the right side with a widely different result: some foul-looking thin pus and a large quantity of most fœtid gas escaped. The diagnosis

was now clear, and the woman having given her consent, it was determined to operate.

The operation was performed on February 4, by Mr. Percival, with strict antiseptic precautions, the patient being under the influence of ether. An incision was made in the median line reaching from the umbilicus to about $1\frac{1}{2}$ inches from the pubis, the fasciæ and linea alba were divided on a director successively, and the peritoneum exposed. In cutting through the peritoneum the cyst was found to be everywhere strongly adherent to it, and on making an opening into the cyst a large quantity of very foetid gas escaped. The hand was plunged into this stinking cavity, and the first part that was taken hold of was extracted. Unfortunately this was found to be the arm, and, on making traction, it was evident that the body was so doubled that it could not be released without some further measures. The head was therefore decapitated with a strong pair of scissors, and then making traction on the arm the body was easily extracted. The head, being seized with a pair of strong toothed forceps, was also easily delivered. The remains of the placenta were removed as a loose foul decomposed mass. The hand being then introduced, the whole interior lining of the cavity was found to be very rough, and quite at the base were two gall-stones, which were also removed. The cavity was freely syringed out with a solution of carbolic acid, and deep and superficial sutures were introduced, except quite at the lower part of the incision, where a full-sized drainage tube was inserted. The patient was removed to bed, and ordered a grain of opium every four hours, with diet of milk, strong beef-tea, and brandy. In the evening the patient was comfortable, free from pain, and there had been a great deal of discharge: the wound was redressed, and the cavity again washed out with warm carbolic acid lotion—T. 99'4.

Feb. 6.—Had passed a quiet night, free from pain—T. 98'6. Taking her nourishment well; no sickness; much discharge from wound with odour of fæces, and on washing out the cyst unmistakable evidence of fæces was found, showing, as was expected when the gall-stones were extracted at the operation, that the cyst had established a communication with the intestines. The patient remained in the same lethargic condition, and gradually sank, dying at 8 P.M.

Post-mortem Examination.—On opening freely the cyst and exploring its relations with the abdominal viscera, it was dis-

covered to be adherent in front to the abdominal wall, above and behind to the intestine and omentum, and inferiorly to the pelvic organs. What is throughout this report denominated a cyst, for the purpose of simplicity, in reality presented no definite cyst wall in any part, but the pelvic portion was the most dense, and involved the organs so closely in a firm fibrous tissue that it was impossible to separate the various viscera the one from the other. The upper portions of the cyst were simply formed by fibrous adhesions with the intestines and other organs. Within, the cyst wall appeared blackened from its decomposed contents, while on the left side, where the cranial bones had been situated at the time of the operation, some reddish brown hair, closely matted, was firmly adherent. No portion of the internal surface of the cyst presented any sign of having been the attachment of the placenta. At its upper portion and to the right of the median line was a "rose bud" prominence marking an orifice, which led directly into a portion of small intestine (the upper part of the jejunum), forming the wall of the cyst in that region. The contents of the adjoining piece of bowel exactly resembled the fecal discharge which occurred after the operation. So dense was the fibrous tissue at the lower part, that the pelvic organs could not be carefully distinguished from one another, and an attempt which was made to determine the condition of the ovary or Fallopian tube leading to the extra-uterine fœtation, was unsuccessful; differentiation of the parts being impossible.

The liver was enlarged and fatty, and a gall-stone was found in the cystic duct.

The other organs of the body were all healthy. The body was exceedingly emaciated.

Remarks.—The main difficulty that was encountered in the above case was in the diagnosis. It seems almost incomprehensible, that the contents of the cyst should have advanced to such an extreme degree of decomposition with no other symptom than emaciation, and with no rise in the pulse or temperature, nor any history of rigors. Under these circumstances, with a large tumour evidently occupying the abdominal cavity and resonance over the whole surface thereof, the staff were at first divided in opinion; Dr. Buszard considering it to be a case of extra-uterine fœtation, whilst the others leaned to the opinion that it was some malignant tumour growing from behind, and pushing forward the intestines. The second exploratory needle, however, completely

cleared up the case, and rendered it evident, from the extreme emaciation that was progressing, that an operation could give the only chance of recovery, however small that might be. Regarding the operation, no difficulty in its completion was found ; but the whole case, after the cyst was opened, was foul and loathsome to a most extreme degree, the stench being almost unbearable, and the hand having to be thrust into this horrible cavity, over which carbolic acid spray had not the least effect. In a not unnatural anxiety to get it quickly over, the first part that was felt was liberated, which, proving to be the arm, rendered decapitation necessary ; but this, in such a case, hardly lengthened the operation at all. At its close, the finding of the two gall-stones quite in the lower part of the pelvis, gave it a more complicated complexion, and rendered it almost hopeless, from the certainty that a communication with the intestine had been established. It must, I think, be regarded, that the woman was in such an extreme degree of prostration and emaciation, that she was incapable of feeling any of the effects of the operation, as inflammatory fever or such like, and the shock of the operation was nothing compared with the relief from such a foul and loathsome mass ; hence she rallied afterwards, and took food well, but was quite unable to regain her lost ground, and gradually sank from prostration. From the after history, it cannot be considered that the operation added to the dangers of the case, and it must be regarded as the only appropriate treatment. Lastly, as to the nature of the case. It seems to me that it must be conceded, that in its course it followed the usual routine of cases of abdominal gestation, though, as is so often the case, the parts could not be distinctly differentiated at the post mortem, from the fact that the cyst consisted simply of adhesions with other parts. We must suppose that it was such a case going on to term, producing then symptoms of labour, and being followed by no unfortunate result for a time. At last, however, ulcerative absorption is from some cause set up, and a communication with the intestine forms ; then the scene changes, the cyst and its contents undergo decomposition, and emaciation, with the other train of evils, follow.

A CASE ILLUSTRATING THE EFFECT OF SYPHILITIC INFECTION ON EIGHT CONSECUTIVE PREGNANCIES.

By FRANCIS HENRY CHAMPNEYS, M.A., M.B. Oxon, M.R.C.P.

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Charlotte's Hospitals.

THE following case is recorded as a typical instance of the effect of syphilitic inoculation on the course of successive pregnancies:—

E. H., æt. thirty-one, married nine years (twice married). Has been pregnant seven times, and is now pregnant for the eighth time (Sept. 19, 1879).

The course of her pregnancies has been as follows:—

First marriage—

1st preg.	terminated at 7 mo.;	child had died 3 wks. before.	
2nd do.	„ 8 mo.;	do. 7 days	do.
3rd do.	„ 7 (?) ;	do. 7 days	do.
4th do.	„ 8 mo.;	do. 3 wks.	do.
5th do.	„ full time ;	do. 7 days	do.

Second marriage—

6th preg. terminated full time ; child alive still.

7th do. „ at 8 mo. ; child had died 1 mo. before.

Her first husband was “rather gay.” She had a sore throat and rash five months after her first marriage.

She is now five months pregnant, and apprehensive of miscarrying again. Foetal heart sounds vigorous.

R Hydrarg. iod. rubr.		gr. $\frac{1}{16}$
Pot. iod.		gr. v.
Inf. cinch. flavæ		ʒj. bis.

This was changed for hyd. c. cret. gr. iij nocte maneque. About a fortnight later, pain and swelling of the left wrist, without redness, appeared, and the original mixture was repeated, and ung. hydrarg. applied to the wrist. The mercury draught was continued throughout pregnancy.

When six months pregnant she noticed a marked enfeeblement of the child's movements. In four weeks from its first appearance the swelling on the wrist had gone.

From the beginning of the seventh month the foetal movements increased in strength.

During the course of the pregnancy I had an opportunity of seeing the only surviving child, two and a half years old ; this child is certainly rickety, but has also the *voir de polichinelle* which it has had "since birth ;" nose flat ; enamel of upper incisors and canines defective, some of them carious ; no cracks about anus or corners of mouth ; bones of skull feel very solid ; head large ; eminences to be felt in the neighbourhood of the now closed anterior fontanelle ; spleen not to be felt.

I also saw the second husband, a fine-looking man, who honestly confessed to having had "nearly everything," including sores on the penis ; but was positive that he never had a rash and sore throat. No marks on glans.

The pregnancy proceeded to the full term, and the child was born alive 277 days after the cessation of the last monthly period. The placenta was carefully examined, and found perfectly healthy.

The child—now all but eight months old—has shown no sign of congenital syphilis.

The case shows a strong infection derived from the first husband (the second husband was probably not syphilitic) gradually wearing out, but still active two and a half years ago.

What credit is due to the mercury treatment in the present pregnancy is questionable.

The wrist affection was believed to be specific ; it disappeared under (? in consequence of) mercurial treatment.

Whether the result to the child would have been different if mercury had not been used, is a matter which can be speculated upon, but cannot be decided.

The red iodide of mercury was well borne.

A CASE OF UTERINE VERSION SIMULATING ULCERATION OF STOMACH.

By GEORGE ELDER, M.B.

Surgeon to Hospital for Women, Nottingham.

THE case which I desire to bring before the readers of the OBSTETRICAL JOURNAL is, from its exceptional clinical features, worthy of record.

Mrs. M., aged thirty-four years, living at Stoke Rochford, near Grantham, had, prior to January, 1879, enjoyed good health

during the five years of her married life. She had had two children, of which the labours were natural, and the recovery complete. In January, 1879, after missing three periods, she had what she thought was a miscarriage. Her reasons for coming to this conclusion were (1) the presence of expulsive and paroxysmal pains for two days preceding the ejection of a "lump;" and (2) the continuance for three weeks subsequently of a discharge similar to what she had had after her previous labours. No medical man was called in, and, without a single day's rest, she continued her household duties. Needless to say, her health from this period gradually declined. Her appetite became uncertain. A forcing, constant pain, referred to stomach and back, was felt, always aggravated towards night after the exertions of the day. From the beginning of her illness there was great gastric irritability and acute pain, not confined to meal times, but always aggravated by them. Towards the latter part the sickness was so constant and the pain so agonizing, that the patient was afraid to eat. In July, when the combination of these symptoms had made the patient's condition so critical that her friends became alarmed, medical advice was sought. Some little erosion of the os uteri was found, and treated without any benefit accruing. Subsequently a consulting physician of good repute diagnosed the case as one of stomachic ulceration, and prescribed a milk diet with absolute rest in bed for three months. Under this treatment the sickness abated; but there still remained the acute gastric pain, and the accompanying declension in flesh and strength. It was after this regimen had been tested for five weeks that I saw her in consultation. She certainly had all the appearance of a woman suffering from some grave visceral lesion; but, bearing in mind the etiology of the case, and finding nothing either in the chest or abdomen to account for her symptoms, I made an examination of the pelvic organs, with the result of finding a soft, subinvolted uterus with its fundus displaced forwards and downwards upon the anterior vaginal wall, whilst the os looked towards the sacrum. The favourable prognosis which I ventured to give, has been verified. The patient is now going about her household work; not strong certainly, but daily improving. Her stomach is gradually recovering its tone, her flesh and strength are being restored to her, and the menstrual function, which during her illness had been disturbed, is becoming perfectly normal. The treatment adopted was the insertion of a cradle pessary, and the

exhibition of potassium bromide. In addition, certain general directions were given as to exercise, diet, &c., in order to improve the general health, and afford the necessary amount of rest to the misplaced organ.

Remarks.—There are several features of the above case worthy of comment. The first is the clearness of the causation. What with the relaxation of the uterine attachments, and the heavy and softened condition of the walls, nothing was wanting but the necessary exciting cause to produce displacement. This was supplied by the getting about of the patient. And this is only an extreme example of the predisposing influence of subinvolution in the production of uterine deflections. A second, and quite as important a point in this case, is the prominence of the reflected symptoms. Probably no one symptom is so common to uterine disorders as nausea or sickness; yet it is certainly rare to find the gastric disorder occupying such a large share in the clinical history of a case as in this. So predominant was it, that the primary disease became almost entirely obscured. And thirdly, such a case as this teaches everyone the importance of making a complete examination, before hazarding an opinion.

Reports of Hospital Practice.

LONDON HOSPITAL.

Suppuration behind Peritoneum, travelling up the Course of Inferior Vena Cava—Ovaritis—Peritonitis—Symptoms somewhat resembling those of Enteric Fever.

Under the care of Dr. PALFREY.

(Reported by Mr. JENNINGS.)

M. S., aged thirty, single; admitted May 10, 1880. The catamenia appeared between fourteen and fifteen; has always been and is still regular; the flow lasting three or four days, and being moderate in quantity.

Present Illness.—Has been ill since last June, suffering from great pain in the left side and back, and down the thighs, much exaggerated during and immediately before a menstrual period.

Notes of her local condition before the onset of acute symptoms were unfortunately not made.

May 17 (Monday).—Last Saturday evening the patient complained of great pain around abdomen ; shivered for about half an hour, and was very sick. Temperature 103.5° .

Was ordered— Quinæ disulph., gr. v.
Pulv. opii, gr. $\frac{1}{4}$.
Ft. pil. ; 4tis horis.

Much headache on Sunday ; better to-day.

May 19.—Was very sick last night, and half-a-dozen times during day ; much pain in stomach ; vomited matter green.

Evening—temperature 103.5° ; pulse 112. Continuous vomiting ; slight tenderness in right iliac fossa.

May 20.—Temperature 101.5° ; pulse 108 ; respiration easy ; expression placid ; considerable tenderness in iliac fossa ; tongue red at edges, furred in centre ; bowels not opened ; vomiting and retching continued all day, vomited matter consisting of greenish fluid.

Towards evening bowels acted nine times ; ejecta said to have been of a brown colour, but not kept ; shortly after violent pain in cæcal region came on. Two light rose-coloured spots on abdomen, which fade on pressure ; tongue furred. Hypodermic injection of morphia gr. $\frac{1}{3}$ administered. Temperature 104.2° ; pulse 120 ; respiration 36.

May 21.—Slept the whole night ; no sickness this morning ; tongue furred in centre, red and dry at the edge ; lips dry ; still pain in right iliac fossa. Temperature 102.8° ; pulse 116 ; respiration 24. No cough ; no more diarrhœa.

Evening.—*Motions* observed ; semi-fluid, dark-brown colour.

May 22.—Morning temperature 102.0° ; mid-day 101.0° ; evening 103.0° . No sickness during the day ; pain considerable during latter part of day ; feels very sleepy. On *vaginal examination* there is a fulness in right lateral *cul-de-sac*, and extreme tenderness.

May 23.—Temperature 100.5° ; pulse 108, soft and weak. No sickness ; face dusky, pinched and dull ; tongue very dry, very much coated in centre ; slept all night ; bowels have not acted ; the abdomen is somewhat enlarged and tympanitic ; extreme tenderness of right iliac fossa.

May 24.—Last evening, temperature 103.0° ; pulse 120. Abdomen rather more tympanitic ; great pain in right iliac fossa. On *vaginal examination* a rounded body is felt in right lateral *cul-de-sac*, extremely tender to the touch.

This morning, temperature 100.5° ; pulse 120. Placid expression; no obtuseness of mental faculties; sickness returned; abdomen still swollen and tympanitic; tongue moister and less furred. *Motions* fluid, in appearance approaching typhoid character.

May 25.—Patient was very sick last evening; temperature rising to 103.0° ; injection of morphia gr. $\frac{1}{4}$ was administered; a moderately good night was passed. No sickness this morning; little food has been taken; temperature 101.0° ; (chart resembling the typhoid type;) bowels not moved since last night; abdomen not swollen; very little pain; tongue and teeth dry; no delirium; no rash.

Evening.—Temperature 102.0° ; pulse 112. Patient not sick till this evening; no rash; hypodermic injection of morphia gr. $\frac{1}{2}$.

May 26.—Patient slept till twelve; after that was restless and delirious; vomited once this morning; she is drowsy, forgetful, and apathetic; tongue very dry, difficulty in protruding it; lips and teeth dry; no rash; little pain; considerable emaciation.

Evening.—Temperature 101.5° ; pulse 128; respiration 28.

There has been very slight sickness; feels drowsy, restless.

May 27.—Temperature 101.6° ; pulse 132 and weak. Did not sleep much last night; tongue cracked and red; sordes on teeth and lips; abdomen tympanitic; no pain; sudamina; bowels not acted; no sickness; nutrient enemata ordered. Patient remained very prostrate all day until evening, when pulse was observed to become weaker and faster. Voice very weak; speech gasping. Brandy ʒij every half-hour, by mouth. Mist. vini gallici by rectum.

Respiration became very rapid and shallow. On auscultation breath sounds very harsh: could not be turned over to get at lung bases. Notwithstanding stimulants, pulse became weaker and faster, until it could not be counted. Respiration increased from 44 to 68. Brandy was injected subcutaneously without producing any perceptible improvement. She died at midnight. The bowels had not acted, and the enemata had been retained. The temperature rose steadily the whole evening from 101.0° to 106.0° .

Autopsy.—Body well nourished. Large amount of adipose tissue in abdominal walls. Extreme congestion of cervix and body of uterus, of Fallopian tubes, and morsus diaboli. Both

ovaries covered with lymph. Much congestion of the rectum. *Intestines* matted together by fresh lymph. Purulent inflammation behind peritoneum, travelling up the course of the inferior vena cava. Lumbar glands coated with lymph. *Lungs* œdematous. *Heart* flaccid; extravasations posteriorly. No evidence of typhoid fever.

*Hypertrophy of Cervix—Amputation by Galvanic Cautey—
Tetanus—Death.*

Under the care of Dr. PALFREY.

(Reported by Mr. F. B. FISHER.)

S. C., aged thirty, shopman's wife, admitted January 16, 1878.

History.—Was never very strong; was said to suffer from sluggish liver, and had bilious headaches.

Began to menstruate when thirteen and a half years old, at the same time had rheumatic pains and was laid up in bed three months; her periods were irregular up to age of fourteen. From fourteen to twenty-one (when she was married) she was regular. Generally had a week's pain of a bearing-down description before the flow appeared, easier as soon as it commenced; it generally lasted only two days and was scanty. The pain was getting less up to the time of her marriage. First child was born nine months after marriage. Instruments were used (after patient had been in labour from Sunday to Wednesday morning), which the doctor said had cut her a good deal. After her confinement the doctor twice applied caustic to her womb. The application pained her very much. She was ill for three months after, her milk was very scanty, and she had a yellow foetid discharge for five or six weeks after confinement. Suckled twelve months, during which time there was no menstruation. Never felt so well after as before her confinement. She was regular for the next twelve months, and when she again became pregnant she began to have the first symptoms of "bearing down;" felt something come down, but nothing was outside. When three months gone, she fell down and lost her senses one morning (had done so twice before marriage). A day or so afterwards she found she could not pass water and was in great agony. She went into hospital and had it drawn off. "The doctor placed her womb better for her," and she remained in bed eight weeks in hospital,

and her womb did not come down at all. When in her fifth month it came down worse than ever, during house-work ; and at seven months labour came on ; had a quick labour, and recovered well, except the "coming down." Patient had good health up to her next pregnancy, two and a half years after. When "carrying" this child she was very bad, her womb came down so. Constant discharge of "blood and matter." To pass water she had to push the parts back, and micturition caused great pain. Child born at seven months. Womb subsequently came down very much, and has steadily got worse and worse in this respect during the last three years.

On examination, cervix uteri seen protruding from vulva, much thicker and hypertrophied, the lower half much congested. No. 8 bougie goes five inches. On replacing the prolapsed portion about one and a half inch of this enlarged cervix found to be infra-vaginal.

January 31.—To-day the whole of the vaginal portion of cervix was amputated by the galvanic cautery. No hæmorrhage. The cautery was afterwards used to make the cervix more funnel-shaped than otherwise would have resulted from the operation.

Evening.—Patient in very little pain. No opium administered. No hæmorrhage.

February 5.—Patient doing very well. Temperature once reached 102°, but has been descending steadily. One night pain was sufficient to require a morphia suppository. Slight fœtid discharge. The pain seems mainly due to a superficial eschar, produced by the cautery, on the labium. Bowels not open since operation. Urine has been drawn off until to-day ; now she passes it herself, but has some pain on doing so—better each time, however. Appetite bad. Thirsty. In good spirits.

February 7.—Last night patient says she could not open her mouth widely when eating her supper. Slept pretty well, but during the latter part of the night she complained of pain across her chest, and at six o'clock this morning her teeth were closed. She also complained of her arm, and nurse found it rigid. The right arm is now found to be quite flaccid ; but the masticating muscles, the sterno-mastoids, and some muscles at back of neck are firmly contracted. Ordered—

Chloral hydrat., ʒss,

Potass. bromid., ʒss, morning and night.

Evening.—Has a little difficulty in swallowing, but takes liquids

easily, a gap being left by loss of teeth. Every few minutes there is twitching of the muscles of mouth, and patient takes a deep breath. She says that she feels a choking sensation in her throat, and then something relaxes, and she is obliged to draw a deep breath, which causes her pain, but directly after she feels relieved. The "risus sardonicus" is seen when she draws this deep breath. Her temperature yesterday was $99^{\circ}0'$; this morning, at 9.30 A.M. (about five hours after she found her jaw fixed), her temperature was $97^{\circ}0'$ (carefully taken, and twice over); midnight it was normal; to-night it is $99^{\circ}0'$.

She is ordered mist. vini gallici, $\mathfrak{ss}$, every two hours. Curara $\frac{1}{16}$ gr. has been administered subcutaneously. Curara $\frac{1}{16}$ gr. apparently had no effect:

Mind is now placid. Says she has been very much shattered since last spring, when she lost her child, and has had occasional attacks of hysteria. For the last several days patient has complained of flushings, getting very hot and perspiring, and then feeling cold. She said this took place more when persons spoke to her.

February 8.—While patient was asleep, her mouth was well open, but it was closed instantly any consciousness returned. Temperature $98^{\circ}4'$ this morning; pulse 116; respiration 22. Great difficulty in swallowing this morning. The great change this morning is that the recti muscles of abdomen, and those of back, are spasmodically contracted 5–10 times a minute. Her pupils are dilated, but respond to light. Curara $\frac{1}{7}$ gr. injected apparently without effect. Morphia suppos. administered as well.

3 P.M.—Patient has been quieter, but the spasms prevent her swallowing. Nutrient enemata ordered. $\frac{1}{2}$ gr. morphia hypodermically. Patient feels very sleepy, but the spasms prevent sleep. Nutrient enemata given.

Evening.—An enema of chloral hyd. $\mathfrak{ss}$ and mucilage administered. Difficulty in swallowing is much increased, if she tries to do so when requested by the physician. Breathing rapid and jerky. The muscles of inspiration act spasmodically. Morph. supp.

10.30 P.M.—Patient was seized just now with the most severe spasm that she has as yet had. Sister says she was very blue in the face, and struggled to get her breath. The Resident Accoucheur found her raised in bed, and struggling in the arms of the nurses. Chloroform was inhaled, and patient left sleeping; drawing deep, long

breaths, but suddenly. A nutrient enema of equal parts of strong beef-tea and mist. vini gallici to be injected at 1.30 A.M., and another 5j of chloral hyd. enema to be held in readiness during the night, but not to be given without medical orders. No improvement in swallowing. Temperature 101°0'. Patient soon recovered from the chloroform, and symptoms became a trifle less urgent.

February 9.—She died at 3 o'clock this morning. Had only two severe spasms between 12 and 3 A.M. She did not die during a paroxysm, but quietly, with hardly any spasm. No opisthotonos. Nutrient enema not retained. Chloral enema not administered.

Autopsy.—Left ventricle contracted. Lungs engorged with venous blood. Kidneys congested, otherwise healthy. Spinal cord congested. Brain apparently healthy. Bowels contained some hardened fæces. Uterus congested. Inner surface of womb suppurating. The newly-made os externum was so natural in appearance that the pathologist was at first deceived as to any operation having taken place. A small ovarian cyst, about the size of a walnut, was found to exist. The stump was in a very satisfactory condition, and there was nothing locally found that might have been supposed to have given rise to the attack of tetanus.

Notc.—Patient subsequently said it was "fear of having the operation over again" that brought on the lock-jaw; she dreaded it so much.

Metrorrhagia—Dilatation of Cervix—Polypoid Growths of Endometrium—Application of Nitric Acid—Tetanus—Death.

Under the care of Dr. PALFREY.

(Reported by Dr. B. R. RYGATE.)

E. C., aged forty-five. Admitted August 3, 1878. Patient began to menstruate when about fifteen years of age, and continued regular till marriage. She was married at nineteen, and before she was twenty-one had two children, but has had none since. Since marriage, until about three years ago, she remained regular; but about that time and since she has had a dull aching pain in the lower part of the abdomen, and an excessive discharge of blood at her menstrual periods.

Present Illness.—After having been slightly out of health for some weeks, with flying pains in her limbs and abdomen, the

pain became more constant, and was accompanied by a discharge of florid red blood. There was no leucorrhœa. She lost her appetite, and the loss of blood was such that it rendered her unfit for her ordinary duties. She also had pain of a periodical nature, which was at times most severe.

August 6.—The hæmorrhage still continuing, in spite of ergot and the plugging of the cervix with Ferridized cotton, it was resolved to dilate the cervix and explore the interior of the uterus.

August 9.—Laminaria tents introduced.

August 11.—Sponge tents.

August 12.—Cervix fully dilated ; was pulled down by a tenaculum, and a small speculum passed into the uterus. Growing from the fundus uteri was seen a mass, of the circumference of a sixpence, granular and bleeding. Also from mucous membrane were growing cyst-like bodies—granular chronic endometritis. The growths and mucous membrane were touched with nitric acid.

August 18.—Aching pain in the left side of lower jaw, which is tender to the touch.

August 19.—Patient is free from pain and has no hæmorrhage ; complains of some stiffness in her jaw, but can open mouth.

August 21.—Stiffness of jaw increased, patient unable to open her mouth ; some rigidity of muscles of right side of neck ; difficulty in swallowing, making the patient feel as if she would be choked ; no twitching ; the left side of upper lip slightly drawn up ; complains of no pain, except at back of neck ; pupils are equal and respond to light ; no difficulty of breathing. Chloral hydras., gr. xx, and aconitine, gr. $\frac{1}{80}$, hypodermically in the evening.

August 22.—Slept for two hours after chloral. Ordered nutrient enemata of beef-tea and brandy mixture every four hours.

Evening.—Sol. acon. $\mathfrak{mij}$.

August 23.—Had rather a restless night. Able to drink with much less pain. Jaw can be forcibly opened a little more than yesterday. Sol. acon. $\mathfrak{mij}$.

Evening.—Aconiti repeated ($\mathfrak{mij}$).

August 24.—Complains of pain all down her back. Jaw is more firmly fixed this morning.

Evening.—Has had about six attacks of paroxysmal retraction of the head, each paroxysm lasting about a minute. Complains of aching pain in the neck. Sol. aconiti $\mathfrak{mij}$ hypodermically.

August 25.—Complains of great pain in the neck and back.

Had five spasms during the night and one this morning. The spasms draw the head and shoulders back—last for about a minute. Mouth more firmly clenched this morning.

Evening.—Swallowing causes her more pain than it did this morning ; says she feels as if she were being stifled, and feels as if the front of her neck was swollen. There is rigidity of sterno-mastoid, but not much. Morphia, gr. $\frac{1}{2}$, hypodermically given.

August 26.—Morphia, gr. $\frac{1}{2}$, given.

August 27.—Morphia, gr. $\frac{1}{2}$. Complains of pain over stomach. Had several twitchings of the muscles of the neck, but nothing so severe as previous ones.

August 28.—Some tenderness over abdomen. No paroxysmal retractions. No rigidity of anterior cervical muscles. During the night she had spasm on attempting to swallow. Has had morphia, gr. $\frac{1}{2}$, in the night, early this morning, and repeated at 12 noon.

August 29.—Had morphia, gr. $\frac{1}{2}$, at 8 last night, $\frac{1}{4}$ at 12 P.M., gr. $\frac{1}{2}$ at 9 A.M. this morning. Complains of pain in the front of neck. Mouth can be opened to a less extent than yesterday. Passes her water under her. To the touch no marked rigidity of muscles. Abdominal pain easier. Cannot swallow quite so well as yesterday. Ordered ext. physostigma, gr. j every two hours for three doses.

Evening.—Says she can swallow better since last draught (2nd), and that there is less spasm and less sensation of some one clutching at her throat. Great craving for ice and milk, patient being extremely thirsty.

August 30.—Morphia, gr. $\frac{1}{2}$, given hypodermically. Jaw firmly shut. Patient unable to swallow.

Evening.—Patient has been unable to swallow all day ; complains of pain in both legs. Has had numerous spasmodic twitchings of head, legs and arms. Ordered morphia, gr. $\frac{1}{2}$, hypo. and nutrient enemata. Passes fæces and water under her.

August 31 (Evening).—Has felt better to-day. No tightness across throat. Can open jaw voluntarily to about one inch. Has had no spasm to-day at all ; able to swallow better. Complains still of great thirst.

The symptoms persisted ; the tetanic spasms returned. The patient gradually got worse, till Sept. 3rd, when she died. No autopsy was allowed.

Paralysis following Delivery, from Pressure on Sacral Nerves.

Under the care of Dr. RAMSKILL.

(Reported by Mr. H. E. PRICE, B.Sc.)

M. M——, aged thirty-one, admitted January 26, 1876. The patient, who was a very intelligent woman, gave the following account of her illness. (Such parts of her statement as are irrelevant are omitted, the rest is given in her own words):—

“I was taken ill at 12 at night, Monday evening, April 26th. My child was born at 2.30 A.M., on Wednesday, 28th, with instruments. The second day after my confinement, I found I could not put my legs straight in the bed, and had a great feeling of numbness at the bottom of my right foot, just under the toes. They were both very cold, but did not give me any pain till the tenth day, when the nurse wished me to try and get up and walk. I could not bear my weight at all, so I stayed in bed another week. After that time I tried to walk, but with no better success, though I managed to hobble round the room with the help of two persons; after which I had most acute pain in my leg, but particularly in my foot.

“In June the pain in my foot was almost more than I could bear, and my foot was dreadfully swollen. A physician was sent for, who said some nerve had been crushed at the birth of my child.

“I went to the seaside, and for four or five weeks took hot sea-baths, and the pain in my foot became much better; but it was just as helpless as at first. I returned to London, and used a galvanic battery twice a day: but no success attended my efforts.”

To this it must be added that, the second day after her confinement, she found that she could not put her legs straight in the bed. When she first tried to walk, both legs seemed to give under her; but after another week in bed, together with friction of the limbs, the left leg got quite well.

The patient was well nourished, and not anæmic. Both legs somewhat swollen. The right ankle swollen, but neither red nor tender. She could raise both legs. There was slight loss of sensation over right leg, but especially over the toes and sole of foot.

With a strong interrupted current the peronei and tibialis anticus could be made to act, but feebly. The muscles of the calf required a stronger current to make them act than those of

the anterior and external part of leg. The muscles of the left leg responded to a weaker current than the right.

There was no paralysis or weakness of sphincters, or of left leg, or of upper extremities.

She was galvanized, and put upon tonic treatment, but no apparent benefit followed.

February 18 she left the hospital, not at all improved.

Notices and Reviews of Books.

Notes on Diseases of Women, Specially Designed for Students Preparing for Examination. By J. J. Reynolds, M.R.C.S. Eng.
London: J. & A. Churchill, New Burlington Street, 1880.
Pp. 86.

THIS work is one which belongs to a class specimens of which we do not wish to see multiplied. It is, as the title states, "specially designed for students preparing for examination;" and it is avowedly "chiefly compiled from the works of Drs. Barnes, Galabin, and Atthill." We are bound to say that the title is to this extent appropriate, that the book cannot be of any possible use except for the purpose indicated. It is a kind of catalogue of the contents of the works named. We remember the old and very true aphorism, *Tot homines, tot sententiæ*, and therefore we will not go so far as to say that there may not be students whom this book will aid in getting the kind of knowledge which, as Dr. Michael Foster happily said, in his address at the recent meeting of the British Medical Association at Cambridge, is "literally exchanged for their diplomas." This work we do not think will help the student to understand the subject, for it seems based rather upon the requirements of examining boards than the study of Nature. Neither can we regard it as a guide in practice; for it sets before the reader only a list of remedies, and not the principles upon which proper treatment is based. It is, we are sorry to think, possible that a student whose knowledge is limited to a book of this kind may get through an examination; but, if so, the fact will not be creditable to the examiner.

The best parts of the volume are certain paragraphs and pages which are taken *verbatim* from the works of Galabin and Atthill,

the source of which, we must in justice add, the author is careful to acknowledge. We would hope that these paragraphs may have the effect of attracting the student to the study of the more satisfactory works from which they are derived.

A Treatise on the Science and Practice of Midwifery. By W. S. Playfair, M.D., F.R.C.P., Professor of Obstetric Medicine in King's College, &c. &c. Third edition. Smith, Elder & Co. 1880. Two volumes. Pp. 403 and 414.

THE popularity which this treatise has obtained, and which is evidenced by the fact that a third edition has been demanded so soon after the publication of the first, makes it superfluous to say anything now as to the general plan and merits of the work. All that is at present called for is some notice of the changes which have been made in this edition as compared with the former ones.

The recent discussion at the Obstetrical Society of London upon the use of the forceps in lingering labour, has naturally led the author to carefully reconsider what he had previously said upon this subject. His renewed examination of the question leads him still to adhere in the main to the opinions he had formerly expressed. But the severe criticisms to which the statistics put forward by Dr. Hamilton, of Falkirk, have been subjected by Drs. Galabin and Roper, have compelled him to throw over these figures, and consequently speak with less certainty on the point which they were formerly supposed to prove—viz., the saving of infantile life by the use of the forceps. He now advocates a more frequent instrumental delivery than was formerly thought good practice, rather on the ground of the suffering and risk which the mother is thereby spared, than for the reason that foetal life is likely often to be saved which would without the forceps be lost.

Porro's operation receives a more detailed notice than before. Dr. Playfair is somewhat reserved in his expression of opinion concerning its application. He says: "It is perhaps not justifiable to attempt as yet any positive decision as to the indications for this plan, but it seems beyond doubt that the risks are considerably less than those of the Cæsarean section." If that which is stated in the latter clause of this quotation be proved by further experience to hold good, obstetricians will soon find the question of the indications for the performance of the operation forced upon their notice.

Professor Playfair now allots a chapter to laparo-clytrotomy. His statement of opinion is more emphatic as to this mode of treatment than as to the one we have just referred to. "I cannot but believe," he writes, "that the operation has a great future before it, and that it will be the duty of the accoucheur to resort to it instead of the more hazardous Cæsarean section, unless some special contra-indication exists." He gives a full description of the mode of its performance.

The chapter on transfusion embodies the practical conclusions which are set forth in the report upon the subject made to the Obstetrical Society by Dr. E. A. Schäfer. The method which Dr. Schäfer recommended—viz., from artery to artery—does not seem to the author one likely to come into common use, on account of the somewhat complicated nature of the operative proceedings required.

We might further refer to many other points which show that this third edition is not a mere reprint, but that the work has undergone complete and careful revision. We have no doubt that it will continue as popular as heretofore, and we beg leave to congratulate the author on its success.

Sick Nursing at Home: being Plain Directions and Hints for the Proper Nursing of Sick Persons, and the Home Treatment of Diseases and Accidents in Cases of Sudden Emergencies. By S. F. A. Caulfield. London: "The Bazaar" Office, 170, Strand, W.C. Pp. 83.

ALTHOUGH this book is not written by a medical man, nor for medical men, yet the subject with which it deals is so important to members of our profession that we think it is within the proper function of this journal to take notice of works which treat of it.

This little book, as its title indicates, deals with two different subjects: first, the nursing of sick people, under medical supervision; and, second, the home treatment of diseases and accidents when a doctor is not at hand. We can give the work praise for some things. It is clearly and concisely written, and the author appears to be practically acquainted with what she (or he, but we think the former pronoun more likely to be right) is speaking of; many most useful hints tending to the comfort and benefit of the sick are given. We can speak more favourably of the first part of the book than of the second. The author, as we have said,

seems to be familiar with the sick-room, and to have read some elementary works upon medicine and surgery; but here and there we find set down as fact little pieces of popular superstition, and now and then statements in making which the author has travelled out of her depth. For instance, we are told that the administration of purgatives in scarlet fever is dangerous to life, a statement which we suppose the author has heard made with regard to enteric fever, and has not recollected accurately the name of the disease. Faults of this kind are less numerous in the first part of the work. The most grave one here is, that the nurse is too often advised to act on her own discretion, guided by the patient's feelings and wishes, with regard to the administration of stimulants. In works of this kind it cannot be too much insisted that alcoholic drinks are powerful medicines which ought not to be given without definite instructions, and should never be given just to relieve a passing feeling of faintness or depression. Medical men are often blamed more than is just for administering stimulants without due care; it is too bad that they should be responsible for what nurses do without their orders.

The book, on the whole, is a very good one of its kind.

Abstracts of Societies' Proceedings.

OBSTETRICAL SOCIETY OF LONDON.

Meeting, Wednesday, October 6, 1880.

Dr. W. S. PLAYFAIR, *President, in the Chair.*

Case of so-called Congenital Dislocation of both Hips.

Dr. POOLE showed a little girl, aged four, with the following history:—The mother was suffering from alarming hæmorrhage, due to placenta prævia. Version was performed, the right leg being brought down. The foot was fastened to a tooth-brush placed across the vulva, and remained thus about five hours, when pains came on vigorously, and the child was delivered with ease. He did not remember whether any traction was applied to the leg. No abnormality was noticed till the child began to walk, when it was observed to limp, and the right leg was found to be in fault. The measure-

ment from the anterior superior spine to the knee was half an inch longer than on the left side. There was considerable lordosis with projection of the abdomen, and there was a space between the thighs in the standing position. The child had been taken to Mr. Adams, who pronounced both acetabula to be defective.

Mr. W. ADAMS said that it was a well-marked case of the so-called congenital dislocation of the hip, which he thought would be more accurately described as malformation of the acetabulum with displacement of the head of the femur. In this case both hips were similarly affected, and the lordosis, prominence of abdomen, large size and prominence of nates, shortness of legs as compared with trunk, and wide separation of the thighs were characteristic. The top of the great trochanters, on each side, in the standing position, rose above the level of a horizontal line drawn from the anterior superior spine; but when the child was lying down and a little gradual traction made from the knee, the great trochanter descended fully as low as its normal position—*i.e.*, about an inch and a half below the level of the spine. This was demonstrated to the Society. As to causation, it had been asserted that this condition never exists except in cases of breech presentation, and is due to traction on the leg producing dislocation. In his experience of a large number of these cases, the presentation had generally been natural, and the labours easy. He believed the affection to be essentially a malformation, consisting in arrested development of the acetabulum. The production of pelvic deformity by this condition was proved by Dr. Carnochan of New York, who first called attention to the affection in 1844, and demonstrated it in a patient of whom a life-size model was now in the museum of St. Thomas's Hospital.

Dr. WYNN WILLIAMS concluded from the history of the case and examination of the patient, that the ligamentum teres on both sides had been ruptured during delivery, and that the head of the bone was then drawn up against the edge of the acetabulum by muscular action.

Dr. GRAILY HEWITT thought it very desirable to ascertain whether, in the numerous cases referred to by Mr. Adams, any history could be traced of manipulating traction on the lower extremities during the labour, with a view to determine whether this had a tendency to cause such a condition.

Dr. CLEVELAND mentioned a case of a little boy, malformed in

this way, who had been brought over to him from Quebec, wearing an instrument for supposed spinal disease. The true nature of the case had been pointed out by Mr. Adams.

Dr. GERVIS asked Mr. Adams if spinal lordosis always accompanied these cases, if he had ever examined any after death, and if he had any experience of congenital dislocations of other articulations.

Dr. HERMAN had seen a case presumed to be one of congenital dislocation of the hip in a woman aged thirty. On the affected side the curve of the iliac crest was much flatter than on the sound side. He thought this due to the head of the femur being further back, so that it acted at less advantage in pressing inwards the anterior part of the innominate bone.

On the Rotatory Action of the Forceps.

By Professor STEPHENSON, Aberdeen.

The author considered that recent modifications in forceps showed that the inventive faculty still moved in the grooves of the older and more imperfect ideas. The old idea was—How may we, with the head tight in the grip of the blades, draw with greater accuracy in a given straight line? What really is wanted is an improved form of the instrument which will enable us to impart more readily the rotatory movements which we observe in Nature. The division of the traction from the prehensile blades weakens the transmission of information by the handles to the hand of the operator; in this muscular and tactile sense should reside the true “indicating needle.” The claim made for Tarnier’s forceps, that they allow freer movement of the head in all directions, is no more true than applies to the ordinary instrument, if the operator attends to the directions which they supply.

The opponents of the pendulum movement with forceps occupy good ground when they show it is contrary to the normal mechanism and a fortuitous and risky mode of action; but they go too far when they include in their condemnation all so-called lever action. The true defence of the lever action is to throw out all that is haphazard, and give it scientific precision. The term “lever action” is objectionable, “rotatory action” is preferable.

The forces of labour cannot be reduced to a single resultant, but always consist of a resultant and a couple, the former moving the head onwards, the latter imparting some movement of rotation.

With forceps we have the power of producing both movements ; and as in Nature they are always combined, so in art they should never be entirely separated. Hence, *with the onward traction made in the axis of the pelvis, must always be combined such a movement of the instrument as will tend to impart to the head the rotatory movement which observation teaches us takes place at the particular stage of the mechanism.*

1. *Flexion and Extension.*—With the head in the firm grasp of the forceps, especially if screwed up, there is a tendency to bring down both ends of the head through an equal space, and so prevent due flexion from taking place. But, on the other hand, if the blades are applied with a diagonal grasp the compressing power of the forceps may be made to promote flexion. But flexion or extension must chiefly be promoted by a modification of the rule of traction which might be thus stated—*Whilst the force should always be exerted with strict reference to the direction of the axis of the pelvis, the line of traction should be in a slightly curved direction ; the curve passing out of the line of the axis in a direction corresponding to that of the sagittal suture, towards the side where the forehead lies, for flexion ; to the side on which the occiput is, for extension.*

2. The rotation of the occiput forwards might also be promoted by rotating the forceps on their axis, and bringing the handles slightly toward the side on which the occiput lies. The grasp must be light, so as to permit gliding between the blades.

3. As the head passes under the pubic arch the rule should be that, *whilst carrying the handles forward toward the front of the mother, a carefully applied slight rotatory action should be imparted to the forceps, so as to facilitate the change of the sagittal suture from lying oblique to approach near to that of the mesial line.*

Rotations in Narrowed Pelves.—The application of forceps tends to rotate the head from a transverse to an oblique diameter, and the frontal bone is liable to be thereby thrown on to the promontory. Hence the following rule—When the occipital bone has descended below the level of the brim, and is felt directed against the anterior wall of the pelvis, in order to clear the forehead and prevent injury to the frontal bone, the head should be rotated on a vertical axis, so as to throw the frontal bone off the promontory ; and at the same time slight extension should be given to the head, to bring the forepart down at the side of the pelvis.

The Paper was illustrated with diagrams which were explained by the author.

Remarks were made by the President, Dr. Roper, Dr. Edis, and Dr. Braxton Hicks.

In reply, Professor STEPHENSON said, in reference to an objection by Dr. Roper, that he doubted whether the head could rotate on a vertical axis when impacted in the brim, that all depended upon the meaning attached to the word impacted. Generally the head, though wedged in the narrow pelvis, was still movable on certain axes. Regarding occipital posterior positions he agreed with the President and other speakers that the occiput rarely rotated forward with the ordinary mode of using the forceps. But it was possible to rotate it, and it was our duty to endeavour to do so. The "tentative" mode of employing the forceps referred to by Dr. Hicks was good ; but we should not be content with it, for it might lead astray. We should endeavour to impart the rotatory movements with the precision obtained by exact knowledge.

OBSTETRICAL SOCIETY OF EDINBURGH.

Meeting, Wednesday, March 24th.

Dr. ANGUS MACDONALD, *President, in the Chair.*

Cases of Carcinoma of the Female Pelvic Organs in Professor SIMPSON'S Wards during the Current Session.

By ALEXANDER HUGH BARBOUR, M.A., M.B.

Of the forty-five patients under treatment during the last four months in the gynæcological department of the University Clinical Wards, under Professor Simpson, six were cases of carcinoma. Of these six, four had carcinoma of the cervix uteri, one of the vagina, one of the neck of the bladder and urethra. Several points of interest presented by these cases generally, and the rare occurrence of two of them, justify, I think, the bringing of them before the notice of this Society.

CASES OF CARCINOMA CERVICIS UTERI.

As regards the cases of carcinoma cervicis, the ages of the patients were below what is generally associated in the mind

with this disease. They were 30, 32, 35 and 40. In none did the family history show any hereditary predisposition. Three of them were married; all three were multiparæ: one was a nullipara, and a prostitute. In all, the usual symptoms of pain and the offensive discharge were present.

In one case these symptoms had come on during the puerperium, which illustrates the relation of carcinoma of the cervix to labour and the fissures of the cervix produced by the passage of the foetal head. Emmet lays special stress on the relation of carcinoma of the cervix to fissuring, and says that he has never failed to detect a laceration with the finger unless the disease had already involved the vaginal surface. The fact that one of the four was a nullipara, shows that it may occur where the os has not been fissured; but the cases are too few to make any deductions from.

The second case was of interest in relation to the diagnosis between retained placenta and carcinoma developing during the puerperium. She had been delivered of a full-time child three weeks before admission, and was complaining of the lochial discharge having continued and being of an offensive character, and of the persistence of pain in the back and passing down the left thigh, which had come on during the latter months of pregnancy. The symptoms suggested retained placenta, and the physical examination on admission seemed to confirm this. The cervix was expanded, and fissured anteriorly and to the left. Its cavity was filled up with a breaking-down mass, soft, friable, and bleeding, and attached posteriorly and to the left. There was considerable pain on examination. On the following day she passed several blood clots, but no portions of placenta, and the offensive sanious discharge continued. On examining a few days after admission, the posterior and left lateral margins of the os ext. were felt to be indurated and eaten away, and the speculum showed an irregular bleeding surface. The breaking-down mass attached to this was gone, and was seen to have been blood-clot.

The third case was a nullipara, æt. thirty-two, with a history of a continuous hæmorrhagic discharge for ten months, and a gnawing pain in the epigastrium for eight months, worse at night. Six months before, when she was examined, the cervix was found to be enlarged and infiltrated with hard nodules, but not excavated. Now it was felt to be deeply excavated and fissured, and opened up so as readily to admit the tip of the forefinger;

the fundus uteri was to the front, and movable, and apparently unaffected by the disease. As she remained in the ward till her death, three months after admission, we had an opportunity of watching the progress of the case. The pain increased, being constant night and day, and of a tearing or gnawing character; there never were any marked hæmorrhages, which is noteworthy, considering the extent to which the cervix had been eaten away, as shown by the preparation. She did not become emaciated, and the large quantity of fat present was noted at the post-mortem. Death seemed to result from the poisoning of the system from absorption of septic matter. Though the post-mortem examination showed that there had been perforation of the peritoneum, it was not indicated by any marked symptoms before death. At the post-mortem the whole pelvis was excised from the cadaver. This is the only satisfactory method for studying the position and relation of morbid growths in the pelvis. We can thus study the relation of the parts undisturbed, and this is further aided by making a vertical section, as has been done here. It was at Dr. Hart's suggestion that the entire pelvis was removed in the two preparations before you. It can be done with little difficulty; and there is little mutilation of the cadaver, as it is almost a subcutaneous operation. An elliptical incision is made round the genitals, so that the external organs may be removed with the pelvis. A vertical incision is made in the middle line into the abdominal cavity, immediately above the symphysis pubis, and large enough to allow of the pelvis being dragged through. The knife is carried in through this opening, and the muscles are detached from the pubis and iliac crest, from their abdominal surface, care being taken that the knife does not pass through so as to divide the skin. The external surfaces of the ilia and pubis are cleared of the muscles in the same way; the femora disarticulated on both sides, and the muscles cleared from the ischia and sacrum behind. The pelvis, being freed, can be projected through the opening in the skin. This is best effected by bringing the body so that the pelvis projects beyond the edge of the table, while the legs hang over the side. The coils of intestine having been drawn up into the abdomen, the rectum is tied and divided. The knife is now used again to divide the intervertebral cartilage, either at the sacro-lumbar joint, or higher up if it is wished to remove some of the lumbar vertebræ also. The pelvis can then be twisted out, and padding introduced

to preserve the form of the soft parts. The only laceration of the skin is the comparatively short abdominal incision and that round the genitals. After removal, the pelvis should be thoroughly washed, the rectum and large blood-vessels being syringed out. It can be kept in weak spirit; but if a section is to be made, it should lie for a few hours in strong spirit. The sections which are now before you were prepared in this way and show the following points of interest. There is a considerable quantity of fat in the pelvis, the retro-pubic fat deposit of the pelvic floor, as described by Dr. Hart, being well marked. The cervix uteri has been destroyed, the fundus ending below in an eroded surface. The adjacent mucous membrane of the vagina has also been destroyed, and a large irregular cavity thus produced, occupying the position of the cervix and upper end of the vagina, into which projects the conical eroded lower end of the fundus. The carcinomatous excavation seems to follow the line of the cellular tissue, extending upwards between the uterus and rectum, forwards between uterus and bladder, and downwards between bladder and anterior wall of vagina. Here it has stripped off a portion of the vaginal mucous membrane, which hangs with a free margin. The perforation has extended into the peritoneal cavity on the right side, along the line of attachment of the uterus to the pubic segment of the pelvic floor, for three-quarters of an inch. There is also perforation of the mucous membrane of the bladder, producing a vesico-vaginal fistula. The bladder itself is contracted, and contains carcinomatous matter escaped from the vagina; but there is no induration of the walls except round the point of perforation. The urethra measures $1\frac{3}{8}$ inches, which is the normal length according to Skene.

CASE OF CARCINOMA VAGINÆ.

This case I give more fully from the notes of the clerk in charge.

J. M——, aged forty-one, admitted 27th December, 1879. She complains of severe pain in the lower part of the abdomen, and discharge from the vagina of eighteen months' duration. Present attack began eighteen months ago, when she began to suffer from a pain, sometimes needle-like, and sometimes of a tearing nature, in the small of the back, on the left side. The pain was at first worse at night, and occurred in paroxysms of about an hour's duration. She had also pain during micturition and at stool, and she had to make water more frequently than before, requiring to

rise several times during the night. She also suffered from a discharge from the vagina, at first profuse, bloody, and of an offensive smell. At this time she also noticed a swelling in the left groin, which grew gradually larger, and a few months after a swelling also appeared in the right groin, and enlarged slowly. During this illness she has fallen off in flesh and strength, and for the last three months had been unable to work. Her previous health was good, and there is no history of malignant disease in the family.

Physical examination of the abdomen showed an irregular nodulated mass in either groin, that in the right being larger. These masses are hard and movable, and quite superficial, and appear to be enlarged and indurated glands. On examining the external genitals there was seen behind the left labium minus a sharply defined projecting mass. On exploring it with the finger it was found to extend round the whole orifice of the vagina, and also forwards to and round the clitoris. The mass had a cartilaginous feeling. The rectal examination showed the induration to be apparently limited to the lower part of the vagina, the mucous membrane being quite soft immediately above this, though some irregularity of the anterior wall could be felt higher up. The cervix uteri could be felt per rectum soft, and apparently not involved. The diagnosis was carcinoma of the vagina. Patient went home from the hospital, where she was seen about a month afterwards, and was much in the same condition as when in hospital. She died a fortnight after this; but I could learn nothing of her symptoms just before she died which threw any light on the immediate cause of death. A post-mortem was made, and the pelvis removed. The enlarged inguinal glands were seen as described in the history of the case. In vertical section the cavity of the bladder was seen to be much enlarged, and its walls thinned. The urethra was shortened, measuring only two-thirds of an inch. The cervix uteri had been destroyed, and the mucous membrane of the vagina for a short distance below it. The vaginal mucous membrane was apparently healthy in its middle portion, with the exception of a small patch on the anterior wall. The inferior portion round the ostium vaginæ was indurated. The anterior segment of the pelvic floor was much smaller than in the other section, and the urethra shortened. Both of these could be accounted for by the distension of the bladder. Above the fundus uteri, and attached to it, was seen a tumour about the size of a

goose's egg, of a soft consistence. This has not yet been examined microscopically to ascertain whether it is carcinomatous or simply fibroid. This case is of special interest as showing the difficulty of forming a complete diagnosis during life, and the importance of having a post-mortem to confirm and correct it. There was carcinoma vaginæ as diagnosed, but the condition of the cervix was not made out. The condition of the ostium vaginæ prevented vaginal examination, and what was thought to be cervix uteri, felt through the wall of rectum, must only have been the softened and breaking down cavity at the upper end of the vagina.

CASE OF CARCINOMA VESICÆ.

The patient with carcinoma of the bladder was a married woman, aged forty-two, who had enjoyed good health till her present symptoms appeared. She had never been pregnant. Her menstrual history showed nothing noteworthy except that menstruation had ceased six months before, probably an early menopause. Came complaining of pain in the pelvis and frequency of micturition. The latter symptom first attracted her attention as she had to rise often during the night to empty the bladder. The pain was worst before micturition. These symptoms had begun nine months before she applied for relief. Occasionally blood was present in small quantities in the urine. On vaginal examination the cavity of the vagina was much diminished. A body was felt filling up the anterior and lateral fornices, rounded above and tailed below, corresponding in position to the urethra, neck, and trigone of the bladder. The surface was smooth and regular; consistence unequal, some parts feeling hard, others softer. The cervix uteri was reached with difficulty. It was felt high up above the mass, and distinct from it, of normal consistence. Os small, and looking backwards. Bimanually the uterus was felt to to the front, not enlarged, movable above, but fixed below. The sound passed into the bladder with little difficulty. No deposit was felt in it. The mass described above was recognized to lie between the sound and the finger passed into the vagina. The urethra was dilated with the little finger by Professor Simpson. On reaching the neck of the bladder some difficulty was met with, from the canal becoming contracted. On introducing the finger further, a rough nodular irregular surface was felt over the whole of the lower part of the bladder. The dilatation of the urethra relieved the pain on micturition, but as it was not a case for special

treatment, and patient was anxious to go home, she was discharged, and I have not heard anything further of her.

The PRESIDENT remarked on the interest of the communication, and hoped it would elicit a valuable discussion.

Dr. UNDERHILL had listened with interest to Dr. Barbour's Paper, illustrated as it was with such valuable specimens. Cancer was unfortunately so common, that all must have been struck with the great differences in course, duration, and symptoms which different cases presented. On looking at the two specimens of cancer shown them to-night, and seeing them well-cleaned, and only exhibiting some excavation of the cervix and uterine cavity and a fistula, there seemed to be really little reason why a woman should die from such a lesion. Yet in such cases the disease often ran an exceedingly rapid course. He had recently under his care a young lady, æt. twenty-nine, who illustrated this point. She had been at first under Dr. Matthews Duncan's care for cancer of the vagina. A caustic application was made by Dr. Duncan three or four times, but the disease, in spite of this, spread very rapidly. When she passed into his (Dr. Underhill's) hands, fungating masses sprouted from the vaginal orifice, preventing urination, and damming up the discharge in the vagina. She lived only five months, dying, like one of Dr. Barbour's cases, from blood-poisoning. Her sufferings were dreadful. The tumour was a rapidly growing soft cancer. He felt indebted to Dr. Barbour for his Paper and beautiful specimens.

Dr. CHARLES BELL had listened with deep interest to Dr. Barbour's admirably drawn up Paper, and he had examined his beautiful specimens with great satisfaction. In regard to treatment, he remembered a case under Professor Christison's care where he was asked to examine, and found the cervix a little destroyed. He was afterwards told that it was thought the disease was checked. On examination, however, it was found that the cervix was nearly gone. The treatment adopted was the administration of hyoscyamus and conium. He wished to know how pain was subdued in Dr. Barbour's cases.

Dr. JAMES CARMICHAEL wished to hear the experience of the Fellows as to the duration of life in cancer cases. He was interested at present in a case of a patient seventy years of age, who had had cancer of the rectum, involving the uterus high up, for six years. She had been often seen in consultation, and all were agreed as to its cancerous nature. In addition, a piece which

had been discharged was found on microscopic examination to confirm the clinical diagnosis. The patient's chief suffering now was from tenesmus, coming on several times in the twenty-four hours. The treatment adopted was opium in large doses, so that the patient is now an opium eater—a practice quite justifiable in her instance.

Professor SIMPSON said that one of the patients was under observation from July till February. When first seen, the disease was not far advanced, as the cervix was only indurated. It was not a fungating cancer, but the course was rapid. In answer to Dr. Carmichael's query, the result of his experience had convinced him of the fact that age had a considerable influence, so far as rapidity of the course of the disease was concerned. Thus, in a case of cancer in a woman of thirty, the disease might last one year, while a woman of sixty would live two years probably. This was illustrated by Dr. Underhill's and Dr. Carmichael's cases. Age, however, was not the only element. There are cancers and cancers. In small-celled epithelial cancers development was slow, and there was no marked tendency to necrosis and decay. When the cells were large and multi-nucleated, then there was speedy infiltration and more rapid decay. The blood soon became degraded, there was rapid glandular infiltration, and a short history. The seat of the carcinomatous disease had also an influence on its growth. His impression was that its progress was slower in the rectum than in the uterus, and slower in the cavity of the uterus. He was not so sure about the relations farther down. When it began at the os internum he believed it developed more rapidly, and what he had seen there were encephaloid, with great pain and bleeding and rapid breaking down of tissue. In the vagina, primary cancer was rare but rapid: In the special case given to-night he had diagnosed vaginal cancer on rectal examination. The vaginal examination was so difficult that he was in doubt whether it was purely vaginal or cervical too. The inguinal glands were affected in this case, and of course this never happened in uterine cancer. One curious fact was that the vaginal walls varied in their liability to disease, as fibroma and carcinoma were more frequent on the anterior wall. In the case of carcinoma of the bladder the diagnosis was rendered absolutely correct by dilating the urethra. Cancer patients died from various causes—viz., flooding, septicæmia, &c. Two conditions favoured the latter—viz., the blood was more watery,

making absorption more rapid, and thrombosis in the veins farther impaired the blood. Pelvic inflammation had little influence, as even when perforation occurred there was little evidence of it.

Dr. GORDON had found that the symptoms of pain varied. In some only flooding existed, and the disease was far advanced before any pain came on. This was unfortunate, as the patients were not seen early enough for the whole disease to be removed. He wished to know if the cervix (infra-vaginal) could be removed, and with what success.

The PRESIDENT said the success was fair in early cancer. The disease often returned, because it was difficult to remove it entirely, since, unfortunately, it ran up into the cavity of the cervix more highly than in the outer part of it. It could be removed by knife, galvano-caustic, actual cautery, or gouge. Dr. Marion Sims* had proposed a new method of removing it thoroughly by scissors, steel curette, and knife, the hæmorrhage being restrained by plugging the vagina with plugs of cotton wool soaked in a solution of sulphate of iron. After arrest of hæmorrhage the plug was removed from the cavity of the cervix and replaced by pellets of cotton wool steeped in a saturated solution of chloride of zinc. The vagina was then plugged tightly with pellets of cotton wool steeped in a solution of carbonate of soda. The plug is removed from the vagina on the following day, but the zinc wool is allowed to remain in the cervical cavity for several days. He watches for its recurrence, removes what does recur, and in this way, he says, is able to keep a patient in health for years who otherwise would not have lived as many months. He had listened with great pleasure to Dr. Barbour's first Paper; he was one of their youngest Fellows, and ought to be held up as an example to others. There was, he was sorry to observe, something like a lack of activity among their young Fellows, so that Professor Simpson, Dr. Underhill, Dr. Croom, Dr. Hart, and himself were rather sick of hearing their own articles, and were glad to see Dr. Barbour making his first appearance. The mode of removing the pelvis described to-night was new to him, but he was glad to hear of it, as it promised to be a valuable one, and opened up quite a new field of exact observation in uterine pathology. A great deal could be said on treatment; but that question was not raised to-night. Dr. Simpson had explained most of the other points.

* *American Journal of Obstetrics*, July, 1879.

Vaginal cancer was rare. Two years ago he had a patient with this form, where it ultimately involved the uterus, and the patient died from the disease blocking up the ureters and causing uræmia. This was a known cause of death in cancer, but had not come out in the discussion.

Dr. BARBOUR thanked the Society for their kind reception and for the information he had received. For relief of pain, hypodermic injection of morphia was used.

Cases of Puerperal Fever treated by the Muriated Tincture of Iron.

By CHARLES BELL, M.D.

Lecturer on Midwifery and the Diseases of Women and Children, Fellow of the Royal College of Physicians, Edinburgh, &c.

Having on a former occasion read a Paper before this Society expressing my views in regard to puerperal fever, I shall not occupy your time in now repeating them, further than to say that my additional experience and observation have still more confirmed those views, and satisfied me that Sennertus and Reverius were correct in supposing that it is a blood disease, consequent upon being exposed to an impure atmosphere and coming in contact with polluted matter. Like other zymotic diseases, when uncomplicated it may run its course to a fatal termination without leaving a morbid organic trace behind. This fact is fully borne out by Dr. Rigby, who says that "in some of the hospital cases which came under his notice there was neither time nor power sufficient to produce either symptom or trace of inflammation, the powers of life having from the commencement sunk under the deadly influence of the disease." This is, however, not a common form of the disease, and it is liable to become complicated with other diseases of an inflammatory character in different organs, more especially the uterus; hence arises the great diversity of opinions in reference to the disease, and the various kinds of treatment which have been recommended. But in employing the means which are most likely to eradicate the poison from the system, not only may the disease be overcome, but its complications may be modified and cured.

I have found no remedy so effectual in purifying the system as the Edinburgh preparation of the tincture of the muriate of iron when given regularly in full doses frequently repeated. The great error in the employment of this medicine is the timidity shown in giving it in sufficient doses; in consequence its good effects have

been questioned in the diseases of a zymotic character, such as erysipelas, diphtheria, and scarlet fever. It has a remarkable effect in moderating the pulse, and diminishing the secretion of pus. At the same time, I think it right to warn the practitioner against trusting to the new preparation of iron called the *tinctura ferri perchloridi*, which differs from the *tinctura ferri muriatis* in its formation, its medicinal effects, and in its analysis; yet when this latter medicine is ordered the former is often given by the apothecary, and disappointment is the result in many cases.

The following cases were attended by Mr. Hutchinson, an intelligent pupil of mine, to whom I am indebted for the report of them:—

Beatrice M'Cane, aged twenty, unmarried, was taken in labour on the 21st of November, when the membranes were ruptured in consequence, apparently, of a fright; but she did not send for her medical attendant until 11 A.M. on the 22nd, when the os uteri was found dilated to the size of a half-crown. Her bowels had not been moved for four days, and she had suppression of urine, rendering it necessary to use the catheter, and her bowels were opened by an enema of soap-and-water and castor-oil. Pains feeble and inefficient.

Nov. 23.—Pains stronger, but the first stage of labour not completed.

Nov. 24.—Pains weak and irregular. The os fully dilated at 6 A.M. The head having entered the brim, 40 drops of the liquor ergotæ were given. When the pains became stronger, the ergot was repeated in the course of an hour; but although the pains were stronger, the head made little progress, and at 8.30 A.M. the patient gave indication of exhaustion, rendering it necessary to apply the forceps, which was done successfully at 9 A.M., and a living child was delivered. The placenta was soon expelled, but the perineum was seriously ruptured.

Nov. 25.—Had rigors during the night. Pulse 120, temperature 102° , lochia scanty and fœtid. At the evening visit the pulse was 130, temperature 103.5° . To have 20 grains of the salicylate of soda every three hours, and to have the vagina washed out with tepid milk-and-water.

Nov. 26.—Severe pain in the left iliac region, along with general tympanitis of the abdomen. Pulse 125, temperature 102.5° . Dr. Charles Bell was requested to see the patient in the afternoon, when he ordered her to have the vagina washed out with a solu-

tion of Condyl's fluid, linseed poultices to be frequently applied to the abdomen, and 30 drops of the tinct. ferri muriatis (Edinburgh) to be given every two hours. Immediately before the tincture of iron was given the pulse was 135, and the temperature 103.5° .

Nov. 27, 11 A.M.—Pulse 100, temperature 100.6° . Bowels moved with castor-oil, which brought away a quantity of dark-coloured matter and flatus. The lochia improved, and free from fœtor. The iron and poultices to be continued, along with arrowroot, beef-tea, and milk. In the afternoon, although the general appearance much improved, the pulse rose to 120, and the temperature to 102° .

Nov. 28.—Passed a good night; no pain; the lochia free from fœtor. Pulse 100, temperature 100° . To have 20 grains of Gregory's mixture.

Nov. 29.—Bowels not acted. To have castor-oil.

Nov. 30.—Feverish symptoms have returned; pains over the body; the face is flushed, and she has an anxious expression. Pulse 120, temperature 103° ; has had a rigor. On inquiry the iron had been neglected since yesterday. It was ordered to be renewed, along with the poultices. To have Dover's powder at bedtime.

Dec. 1.—Has had several hours' sleep, and has perspired freely. Has less pain. Pulse 128, temperature 103° , and her general appearance improved. The iron and injections to be continued.

Dec. 2.—All her symptoms improved. Pulse 96, temperature 98.7° . From this period she continued to improve, and went to the country in health.

Mrs. M—— was safely delivered after a natural labour on the 18th Dec. 1879. She went on satisfactorily until the 26th, when she was seized with pain in the left iliac region, having had a rigor during the previous evening, followed by profuse perspiration. Pulse 130, temperature 105° , respiration 28–30 per minute. Bowels not moved for the three days; urine almost entirely suppressed, coming away only in drops, and scalding. The lochia was entirely suppressed.

Treatment.—To have castor-oil; poultices to be applied every three hours. The vagina to be washed out with a solution of Condyl's fluid. To have 15 drops of the tinctura ferri muriatis (Edinburgh) every two hours.

Dec. 27.—Feels greatly better, but has a sense of weakness. Pulse 75, temperature 98.6° . The lochia has returned, and she has voided urine freely of high colour. Bowels open, skin moist.

To have 15 grains of the bicarbonate of soda in a tumbler of water twice a day, with the view of preventing scalding.

Dec. 28.—Feels better and is stronger. Pulse and temperature natural.

Jan. 1.—Able to sit up, and is inclined for food. She made a good recovery.

The PRESIDENT would be glad to hear remarks on this important and all-absorbing question.

Dr. BRUCE on different occasions had used this treatment, but not with the same amount of success, although the doses were full. In one case, last year, of puerperal scarlet fever he gave it a fair trial, but the patient died. He would be inclined to use it still, although he had been somewhat disappointed in the results, particularly as it could be employed simultaneously with other remedies. Bad cases of puerperal fever get well sometimes under various modes of treatment, while many others terminate fatally in spite of all we can do.

Dr. JAMES YOUNG said that in scarlet fever, diphtheria, &c., iron might be considered the correct treatment, and he invariably relied on it in almost every case, likewise in erysipelas. In cases of puerperal fever he generally held to the treatment by calomel and opium if there was local inflammatory action. In a recent case, when the patient (a primipara) had recovered from puerperal fever, she was seized with diphtheria on the seventeenth day; the iron treatment was commenced, with Cond's gargle. The patient made a good recovery.

Dr. A. D. L. NAPIER had some hesitation in criticizing a Paper like Dr. Bell's, seeing that it came from a senior. The two cases seemed to him to be different. The first was simply one of tedious labour terminated by forceps, with ragged perineum, &c. This was followed by metritis, rigors, &c., showing existence of pyæmia. In this case the iron treatment was good. The objection to it was, however, that it was not potent enough. When a patient had a temperature of 104° and a pulse of 130, the iron treatment was risky. In quinine they had a drug, tonic, like iron, which reduced pulse and temperature. The second case was one of high temperature, due probably to severe pain, in which iron could have no specific action.

Dr. GEORGE DICKSON had used sulpho-carbolate of soda with apparent benefit. Lately he had been using salicylate of soda with good results.

Dr. SIMPSON agreed with Dr. Napier that Dr. Bell's cases were not conclusive as to the use of iron. When there had been much loss of blood, then iron was useful. They could not depend on it, however, to bring down pulse and temperature. He was indebted to Dr. Bell for the hint as to the value of the Edinburgh preparation of the muriate of iron.

Dr. UNDERHILL thought Dr. Bell had overlooked the use of Condyl's fluid and cleanliness locally. It was a very important factor in the treatment.

The PRESIDENT was glad to see Dr. Bell back among them again. He had been in the habit of using iron occasionally in such cases, but, after what he had heard, would be more and more inclined, when occasion permitted, to give the drug a fair trial. In one case he saw with Dr. Andrew, where the patient had a very prolonged labour, ultimately instrumental, on account of a narrow pelvis and complicated by a very extensive perineal tear, he had been much pleased with the results derived from its employment. The patient did well for three or four days, but then the temperature went up to 104° , the patient became deeply jaundiced, and, in fact, seemed dying. She, however, recovered completely under the use of the perchloride of iron. But then it sometimes fails, as well as quinine and other medicines, in this dire disorder. He had always taught that in puerperal fever we had no specific, once the disease became established, and no reliable prophylactic except extreme cleanliness and the diligent use of antiseptics. Aconite, opium, and other drugs were useful aids.

Dr. BELL thanked the Fellows for the reception accorded to his Paper. He had found the tincture of the muriate of iron most beneficial in cases of a similar character to the one he had just reported. It seems to purify the blood, and the impurity is apparently carried off by the kidneys. He was glad to hear Dr. Young's case, as it bore out his experience that puerperal fever, like diphtheria, was a zymotic disease. He had never met with a case of diphtheria where there was not a bad smell. He was quite satisfied that the pulse and temperature fell under the use of the tincture. In erysipelas he had frequently seen it fall from 120 to 80 in the course of a few hours, when the tincture was given in doses of thirty drops every two hours. The great error in giving the tincture was timidity in giving the proper dose. The preparation employed should be the muriated tincture of the Edinburgh Pharmacopœia. In a late Paper Professor Spence had ridiculed

its use in erysipelas, but he himself had never seen it fail. In one case the tinct. ferri perchloridi did no good, but the muriated tincture (Edinburgh Pharmacopœia) cured the patient in four days. Thirty drops should be given every two hours. The late Drs. Begbie had used it, and they placed implicit confidence in it as a remedy for erysipelas. In regard to Dr. Underhill's remark as to Condyl's fluid, he seems to have overlooked the fact that it was recommended by Dr. Bell in the treatment of the first case he had just read. He was not likely to undervalue the use of this important disinfectant, as it was he who introduced it into hospital practice. As for Professor Simpson's observation, Dr. Bell begged to remind him of the case of puerperal fever which he handed over to his care in the Maternity, saying it was hopeless; it was put under the treatment just recommended, and the patient left the hospital in health.

Obstetric Summary.

Tarnier's Forceps.—Professor Braun, of Vienna, gives the following as his judgment upon the forceps recently brought before the profession by Professor Tarnier. He thinks that, in the hands of a careful operator, conversant with its use, the instrument may with advantage be used where the head is high and no great disproportion present, because by it less force is needed, and the head is more quickly extracted; but that for the less experienced it is more dangerous to operate with these new forceps, because it is easy with them to be deceived into applying force so great as to be hurtful both to mother and child. Tarnier's forceps is not suitable, because the blades are difficult to introduce, and the traction rods make them difficult to adjust; and the traction rods will not guide one who does not know the axis of the pelvis without them, to pull in the proper direction. It may be that the application of Tarnier's forceps is in practice yet more limited: that where the head is movable above the pelvic brim we should rather resort to podalic version; or, where space is considerably diminished, resort earlier to craniotomy, rather than seek at all hazards to drag the head through the pelvis.—(*Wiener Klinischer Wochenschrift*, Nos. 24, 25, 1880.)

The Treatment of Neglected Transverse Presentations; Schultze's Sickle-shaped Knife.—Professor Küstner, of Jena, writes on this

subject. He narrates a case of transverse presentation, in which, turning being impossible, the spinal column was divided with Schultze's knife. He then discusses the different means of effecting this object. He objects to the *écraseur*, and every similar device, whether the cord be of wire, silk, or any material whatever, that, unless they can be carefully covered, they inflict terrible injuries upon the maternal soft parts, without the operator having any power to protect them : their application is difficult, and their operation uncertain and tedious. He strongly objects to Braun's decapitating hook, on the ground that not only may it be used in a very violent manner, but that it is not effective when used in any other way : the violence is exerted by dragging the child down upon the tense cervix, laceration of which is thereby favoured. The sharp hooks of Davis and others he objects to, on the ground that their curve is too acute, hindering free to-and-fro movement of the cutting edge, and that consequently they can only divide the neck by simple perpendicular pressure upon it. Schultze's knife, having a less curve, can be easily introduced, can be easily protected, and effectively acts on the part of the child opposed to it. About ten backward and forward sawing movements of this instrument are usually enough to get through a child's neck. For operations of this kind the scissors have the disadvantage, that it is very difficult to guard from them parts not intended to be cut ; while this can easily be done with the sickle-shaped knife. If embryotomy should be necessary, to cut through the spine and ribs with scissors is a long and troublesome task ; with the sickle-shaped knife it is easy. In these cases it is best to introduce the knife behind the trunk, and cut from behind forwards. The conclusion the author arrives at is, that we have in Schultze's sickle-shaped knife a universal instrument for neglected transverse presentations. It is the best decapitator, and the best instrument for spondylotomy : these operations being with it easy and devoid of risk to the mother.—(*Centralblatt für Gynäkologie*, No. 8, 1880.)

On the Method of Decapitation.—Shauta defends the use of Braun's hook against the attacks of Kleinwachter and Küstner. He states that those who think that in its use the force exerted by it tends to tear the cervix uteri are not acquainted with the proper manner of using it. The hand which is not employed in handling the instrument should be used for the threefold purpose of protecting the maternal parts, of fixing the head so that the whole force of the hook is exerted upon the neck of the child

and of ascertaining and regulating the degree to which the neck has been divided, and finally of guarding the maternal parts during withdrawal of the hook. He admits, however, that with Schultze's sickle-shaped knife the neck can be quickly and easily cut through. The objection he raises is the fear of wounding the maternal parts, or, if the hand be introduced to guard them, of cutting it, this being especially likely to happen at the moment when the section is completed, the sudden cessation of resistance leading the operator to cut farther than he intended. For this reason he will continue to use the instrument of Braun.—(*Wiener Medizinische Wochenschrift*, No. 32, 1880.)

Gynæcic Summary.

Extirpation of a large Retro-peritoneal Fibroma, and of the Left Kidney and Supra-renal body which were adherent to it.—Dr. F. B. Buschmann reports this case. The operator was Professor Billroth. The patient was aged thirty-five. The belly was distended; no distinct masses could be felt; palpation gave a feeling of firmness and elasticity, but no distinct fluctuation; the percussion dulness passed without interruption into that of the liver and spleen. The tumour seemed fixed, and no connection could be made out between it and the uterus, which was apparently normal. The size and weight of the tumour caused much suffering, and there had latterly been rapid wasting. There was some bronchial catarrh, but with this exception the other organs were normal. The incision made was twenty centimetres long. The tumour, which felt as if it contained fluid, was punctured, but nothing came. As the size of the tumour therefore could not be lessened, the incision was prolonged ten centimetres. The tumour was then separated from the surrounding peritoneum by numerous ligatures. The left kidney and supra-renal body, which were quite healthy, were lying in the true pelvis, and were firmly adherent to the tumour, attempts to separate them producing great hæmorrhage. The vessels in the hilum of the kidney and the ureter were therefore tied, and it and the supra-renal body removed with the tumour, which weighed eighteen kilogrammes. The growth was not pediculated; it had sprung from between the folds of the broad ligament, and grown upwards behind the mesentery. The uterus and both ovaries were normal, and not connected with

the tumour. The wound was closed with twenty-nine sutures, and four drainage-tubes put in. Every antiseptic precaution was observed. Symptoms of peritonitis appeared next day, and the patient died in collapse on the fifth day. There was no autopsy. The tumour was found to be a fibro-myoma.

Amputation of the Cervix Uteri by the Thermo-Cautery. By G. Eustache.—The patient, aged thirty-five, sought advice for the cure of her sterility. A diagnosis was made of elongation of cervix uteri without hypertrophy, and it was determined to remove the elongated portion. The instrument decided upon for the operation was the thermo-cautery. A large wooden speculum was used. The elongated portion was seized by a pair of strong clawed forceps about six cent. from the inferior extremity. The recurved knife of the thermo-cautery having been heated to redness, the resection was commenced immediately below the forceps. It was found, however, that in a few moments the parts were hidden by dense fumes, and the patient, who had not been placed under the influence of any anæsthetic, complained of severe pain in the vagina and neighbouring parts. The pain was eased, and the fumes removed by the injection of cold water, and in about five minutes the operation was resumed. The same difficulties again occurred, and were combated in the same manner as before. The amputation occupied about forty minutes, and was not altogether satisfactory. The inferences drawn from the case are as follows:—The operation is long and painful, the scorching of the adjacent parts being very considerable. The surgeon is placed in an uncomfortable position, from his inability clearly to see the parts, and his knowledge of the nearness of the peritoneum and other delicate structures. The thermo-cautery may be useful in cases of uterine cancer, or some other morbid growths, but it is not so where amputation of the whole cervix is required; in such cases the bistoury or galvano-cautery is to be preferred.—(*Bulletin Général de Thérapeutique*, June 15, 1880.)

BOOKS, PAMPHLETS, &c., RECEIVED.

"A Practical Treatise on Tumours of the Mammary Gland, embracing their Histology, Pathology, Diagnosis, and Treatment." By Samuel W. Gross, A.M., M.D., Surgeon to, and Lecturer on Clinical Surgery in, the Jefferson Medical College Hospital and Philadelphia Hospital; President of the Pathological Society of Philadelphia, &c. Illustrated with twenty-nine engravings. (H. K. Lewis.)

"Ueber den anatomischen Zusammenhang zwischen orbitalen und intracraniellen Entzündungen." Von R. Berlin. (Volkman's *Sammlung*, Nr. 186.)

"A Contribution to the Pathology of the Cicatrices of Pregnancy." By Samuel C. Busey, M.D. (Reprint from vol. iv. *American Gynecological Transactions*.)

"Ueber Erweiterungsmittel der Gebärmutter." Von Leopold Laudan. (Volkman's *Sammlung*, Nr. 187.)

"Ueber weibliche Nervösität." Von August Rheinstaedter. (Volkman's *Sammlung*, Nr. 188.)

"Some Practical Suggestions in the Treatment of Diphtheria." By R. J. Nunn, M.D. (Reprint from the *Independent Practitioner*.)

Communications, letters, &c., received from Dr. F. H. Champneys, London; Dr. R. J. Kinkead, Galway; Dr. J. G. Swayne, Bristol; Dr. McMordie, Belfast; Dr. More, Kettering.

 ERRATA.

In the report of Dr. Kinkead's reply in the proceedings of the Dublin Obstetrical Society for May 1, 1880, published in the number of this Journal for October 15, we are requested to make the following corrections:—

P. 638, line 18 from foot of page, *for* "I excluded cases of very narrow pelves," *read*, "I included only cases of very narrow pelves."

P. 639, line 2 from top of page, the authorship of a Paper in *The Medical Press* is attributed to Dr. Harris. What Dr. Kinkead did say was: "That impression was altered after I had read Papers by Dr. Harris in *The American Journal of Medical Science*; and I was further impressed with the necessity of reconsidering the subject after reading a Paper in *The Medical Press*, &c.

Line 15 from top of page, *after* "mortality," *read* "in ovariectomy."

All communications, books for review, letters, &c., for the Editor, may be addressed to the care of the Publishers, 11, New Burlington Street, London, W.

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THE
OBSTETRICAL JOURNAL
OF
GREAT BRITAIN AND IRELAND.

No. XCIV.—DECEMBER 15, 1880.

Original Communications.

ON THE TREATMENT OF LACERATIONS OF THE
CERVIX UTERI.

By JOSEPH GRIFFITHS SWAYNE, M.D.

Consulting Physician-Accoucheur to the Bristol General Hospital.*

DURING the last forty years, more numerous and startling improvements have been made in the treatment of diseases of the uterus and its appendages than perhaps in any other department of the healing art. This is no doubt partly due to the fact, that the treatment of these diseases had previously been very much in arrear, especially in Great Britain. Before the year 1840, for instance, the speculum was very seldom employed in this country, the uterine sound had not yet come into use, and ovarian dropsy was looked upon as an incurable disease. Soon after this period, however, Dr. J. H. Bennet may almost be said to have imported the speculum from the Continent; Sir James Simpson brought into use the uterine sound, and thus enabled us to recognize displacements and other disorders of the uterus hitherto imperfectly known; whilst, not many years afterwards, ovariectomy, chiefly in the hands of Mr. Spencer Wells, began to take its place as a legitimate and most successful surgical operation. To Mr. Spencer Wells it is mainly due that all opposition to this operation has been vanquished—speedily in this country, but more tardily on the Continent; and ovariectomy now takes its proper place as the

* Read before the Bath and Bristol Branch of the British Medical Association, Oct. 28, 1880.

latest and greatest of those improvements which have raised British gynæcology to its present pre-eminence. A progress so unusual, however, is generally accompanied with some drawbacks. The extraordinary success achieved by the happy audacity of men like Sir James Simpson, induces other experimenters to come to the front, who, with his boldness but without his genius, venture upon new and untried paths simply because they are new and untried, and mistake innovation for improvement. In this way the *nimia medici diligentia* has come to be the besetting sin of gynæcology ; and no part of the body, perhaps, has been so much sinned against as the os uteri, simply because it is endowed with remarkable patience under injury. No part of the body has been made, in the same way, the *corpus vile* for such an amount of rash and rough experimenting. At one time it was the fashion to treat its most trivial ailments with the strongest caustics ; at another to have recourse to the knife, and slit it up on the slightest pretext. Just at present, however, conservative surgery is having its day—in some parts of the world, at least—and every laceration of this part is to be treated as a serious injury and most carefully stitched up. In short, everything in the way of cure is to be accomplished by art, and nothing left to the *vis medicatrix naturæ*. I have been led to make these remarks in consequence of a Paper which was read at the annual meeting of the British Medical Association at Cambridge, by Dr. Pallen, of New York, on “The Etiology and Treatment of Lacerations of the Cervix Uteri.” I was unfortunately unable to be at Cambridge, and so can only form my conclusions from a very fair summary of the Paper and subsequent discussion, which appeared in the *British Medical Journal* for September 4th, 1880. In this Paper, Dr. Pallen called attention to the causes and the great frequency of laceration of the cervix uteri during labour, and stated that these lacerations were a frequent cause of subsequent uterine disease. Hæmorrhage at the time of the occurrence was the chief symptom, and was sometimes fatal. This, when severe and persistent, he treated by plugging the vagina, provided the uterus was well contracted. Occasionally he stitched up the laceration soon after its occurrence (using wire sutures), but most usually at some subsequent period, four or five days after the cessation of the menstrual flow. It was then necessary to pare the edges of the wound before bringing them together. Dr. Pallen then described the different steps of the operation, which, he said, he had performed on hospital

patients at least fifty times during the last six years. The reading of this Paper gave rise to a good deal of discussion afterwards. The President (Dr. Playfair) and several others remarked that, although the operation had not been practised in England, yet they could not believe it necessary in every case of laceration, as Dr. Pallen had recommended. Dr. Byrne, of Dublin, stated that he had seen 5,000 or more cases of labour during the time he was resident in the Rotunda Lying-in Hospital, and he had never witnessed any case in which hæmorrhage of an alarming nature occurred from this accident. Mr. Jardine Murray asked whether, in cases where the cervix was divided by the knife intentionally, the operation ought to be performed? And if not, why not? Dr. Walton, of Manchester, pointed out the extreme dangers from septicæmia, &c., which would arise by leaving a tampon four or five days, *in situ* as recommended by Dr. Pallen; and remarked that plugging after delivery was, as far as he knew, never practised in this country. Dr. Marion Sims, whilst approving highly of the operation, chiefly advocated it in chronic cases which had resisted all other means of treatment. It was done frequently in New York, but, he added, "he thought it was now done sometimes where it was not necessary. It was only necessary when the mucous membrane was hypertrophied and ectopic." In his reply, Dr. Pallen said that "he believed it was absolutely necessary to sew up every case of lacerated cervix. It was a good rule in surgery always to remove any cause which might produce ultimate evil results. He wished to place the study of obstetrics on a higher plane, and to point out that a great deal of gynecological disease was due to miserable obstetrics. He recognized the difficulty of tamponing a woman after labour; but we must save her life, and sometimes this was the only mode of doing it."

There is no doubt, I think, that Dr. Pallen has not over-estimated the frequency of laceration of the os uteri during labour. But are these lacerations of much consequence? They are generally slight and very seldom extend as far as the attachment of the vagina to the uterine neck. Indeed we must not shut our eyes to the fact that the process of reproduction in the human female, from the beginning to the end, is attended with more or less injury to the soft parts immediately concerned in that process. It begins with the rupture of the hymen at the first sexual intercourse, and ends with the laceration of the fourchette during the first labour, and frequently also of the os

uteri and perinæum. As Dr. Schroeder truly remarks in his "Manual of Midwifery :"—"The non-penetrating or incomplete lacerations of the uterus are almost always situated in the cervix, and those of slight extent arise in the physiological process of labour. In each labour the os uteri is torn at the sides, and this can be felt after delivery. These rents do not give rise to special symptom, and can afterwards be detected with great difficulty, if at all. Only in succeeding pregnancies, when the portio vaginalis is greatly swollen and œdematous, the old cicatrices, which are not extensible, are distinctly perceptible, and they form one of the best diagnostic signs between primiparæ and pluriparæ. It is very rarely, indeed, that these small longitudinal rents of the cervix acquire a pathological significance." Every practitioner of any experience in midwifery will endorse these remarks of Professor Schroeder's. These slight lacerations of the os uteri may be felt by a practised finger to take place just at the moment of the greatest dilatation, when the child's head is passing through it; and their occurrence is denoted by a slight effusion of blood, which usually takes place at this time. Any one who examines after death the uterus of a woman recently delivered will see abundant evidence of the violent stretching and pressure which this part has undergone. Besides the lacerations just mentioned, which are occasionally present, there is always more or less ecchymosis, as if the part had been extensively bruised. The only wonder is that the process of dilatation is not accompanied with more severe injuries and with more unfavourable consequences. When we consider that in its ordinary condition the canal of the cervix uteri will but just admit a uterine sound, and that this canal during labour allows a child's head to pass, we may well apply to the process the expression "*miraculum naturæ*" which Swammerdam applied to the growth of the gravid uterus; for there is no other instance in the human body of a canal which undergoes such an extreme amount of dilatation. And we find in consequence that the part which is subjected to all this rough usage has been admirably fitted by Nature, by its peculiar structure and absence of sensitiveness, for the functions it has to perform. It is also in consequence of this peculiar structure that the os uteri is so tolerant of injury from surgical operations at other times.

In speaking of lacerations of the os uteri during labour Professor Schroeder goes on to remark :—"The ordinary rents in the cervix

are not attended by any symptoms after delivery, but the larger longitudinal or transverse lacerations cause severe disturbances. There is inflammatory fever; the parts near the wound inflame and become infiltrated with the products of inflammation or with blood, the neighbouring connective tissue also participates in the inflammation, and the healing only slowly proceeds. If the lacerations extend almost to the peritonæum, perimetritis or even general peritonitis may be the consequence." He then adds, "only after birth the lacerations cause profuse hæmorrhage, which is very difficult to stop. The bleeding spot is in such cases not easily detected, since uterus and vagina form an irregular cavity with flabby and sinuous walls, over which the blood continually pours. The treatment is, therefore, usually limited to injections of cold water and vinegar, and they mostly suffice, because the hæmorrhage is parenchymatous." These severe lacerations described by Professor Schroeder are fortunately rare. I remember meeting with a well marked case about twenty years ago in a primipara, æt. thirty. The first stage of labour had lasted more than six days, and the os had remained for nine hours about the size of half-a-crown. Chloroform inhalation, bleeding to ℥xvij , and large doses of tartar-emetic and laudanum were tried with little or no effect, and I was thinking of incising the rigid os, when all of a sudden the anterior lip gave way with some hæmorrhage, the laceration extending as far the vaginal attachment. After this the labour went on well until the head was at the outlet of the pelvis, when the woman became so exhausted that I had to use the forceps. There was no hæmorrhage after delivery, and the patient recovered well with the exception of an inability to pass water, which lasted for three days and required the use of the catheter. She also had for some days a very offensive discharge from the vagina, for which weak chlorinated injections were ordered. My experience of these cases is similar to Dr. Byrne's, for I have "never witnessed any case in which hæmorrhage of an alarming nature occurred from this accident." With respect to the secondary results of these accidents, my experience by no means coincides with that of Dr. Pallen as to the severity. If the woman is not attended to properly after delivery, but allowed to get about too soon, the process of uterine involution will be checked; a condition of hyperplasia, especially of the os and cervix, will be induced; and the laceration will become a troublesome indolent sore; and a number of symptoms will arise in consequence

which will require to be treated for several weeks before they can be got rid of. Such may be the result of neglecting a severe laceration ; but the slighter lacerations, which occur ten times as often as these, give rise to no marked symptoms of any kind, although in all probability they never heal by the first intention. They cause the os uteri to assume that open irregular and often fissured appearance in a multipara which so sharply distinguishes it from the regular rounded opening or slit which is characteristic of the nullipara. These appearances are familiar to every one who is in the habit of using the speculum.

Lastly, with regard to the treatment of these cases, is it absolutely necessary to sew up every laceration of the cervix as Dr. Pallen recommends ? To this I answer emphatically—No. A laceration of the os uteri does not stand on the same footing as a lacerated perinæum ; although even that is not an unmixed evil. For instance, a moderate laceration of a broad and rigid perinæum which remains ununited, certainly renders the last part of a subsequent labour more easy. But then it gives rise to many inconveniences ; the woman has a tender irritable sore for some weeks, and, when it does heal, the vagina remains too open, and there is an uncomfortable feeling of want of support, and a tendency to prolapsus uteri. Then the operation of sewing up a lacerated perinæum is so simple, so easily performed, causes so little distress to the patient, and is so successful in its results, that it ought to be performed in every case where the laceration extends more than half way through the perinæum. When it is less extensive it is not worth while to perform it. It is far otherwise, however, with uterine lacerations. When slight, as they generally are, they produce no very definite symptoms and give rise to no particular inconveniences. Any operation for stitching them up would involve a careful examination with the speculum, and would be difficult, tedious, and exceedingly irksome to a patient after a long labour. It is not, therefore, in my opinion justifiable. Nay more, it may not even be advisable, were the operation easy instead of difficult. By these slight tears Nature overcomes the resistance of a rigid os uteri, and we sometimes imitate this natural method artificially by making incisions. If this view is correct, why should we take so much pains to restore the integrity of a circle which has offered and may again offer so great a resistance ? All the treatment that is usually required for such accidents is to keep the patient longer in bed.

than usual, and to syringe out the vagina frequently with tepid water and Condyl's fluid, should the discharge be at all offensive. Even when lacerations are more extensive it is very questionable whether any good would be derived from an operation. If they are attended with hæmorrhage, something should be done to check this—but is plugging the best expedient? As Dr. Walter remarked, in the course of the discussion, the plug is never used in this country to arrest post-partum hæmorrhage, at the full term, because it favours the accumulation of a large amount of blood within the uterus, and may afterwards produce septicæmia by preventing the escape of clots, lochial discharge, &c. If the hæmorrhage from a uterine laceration should be complicated with a tendency to post-partum hæmorrhage of the usual kind, we can easily understand how the plug may become a very dangerous remedy. It would be far better in such cases to have recourse to an injection of perchloride of iron, as recommended by Dr. Barnes, and thus to kill two birds with one stone. Should the hæmorrhage proceed only from the laceration, it would be better to use only a vaginal injection of simple cold water, or perchloride of iron and water—a method of treatment which Dr. Byrne states has always, in his hands, arrested this form of hæmorrhage. It is a good plan also to introduce a lump of ice into the os uteri.

With regard to the secondary affections which are caused by neglected lacerations of the os uteri, it would appear from Dr. Pallen's statement, and from the general opinion of those who took part in the discussion, that they are much more frequent and severe in America than they are in this country. Dr. Pallen stated that "of about 900 patients treated in the gynæcological class of the University Medical College of New York, during the last six years, more than 200 had laceration of the cervix which either interfered with the generative functions or produced more or less disease." Our experience in England certainly does not bear out this statement; but perhaps the greater frequency of such affections in America may be partly due to difference of climate and habits of life, partly also perhaps to the greater prevalence there of unlicensed practitioners of midwifery, and as a necessary consequence of the "miserable obstetrics" to which Dr. Pallen alludes. The most ordinary results from neglected lacerations of the cervix uteri are sub-involution of the whole organ, and hyperplasia of the cervix, together with one or more indolent and irritable sores of the orifice. But I have myself

always found, and I think most gynæcologists will agree with me, that these unpleasant results will yield after several weeks of treatment, to rest, gentle aperients, alteratives and tonics, vaginal injections of cold water daily, occasional scarifications, and the application of caustics at first, and the sulphate of zinc sticks afterwards, about once a week. I have never had occasion myself to pare the edges of these irritable fissures and bring them together with sutures, as Dr. Pallen recommends, nor have I seen any cases that have been so treated by others, although it is very possible, as stated by Dr. Marion Sims that such an operation may be necessary "when the mucous membrane is hypertrophied and ectropic."

During the discussion Mr. Jardine Murray asked one very pertinent question—viz., whether the operation (recommended by Dr. Pallen) ought to be performed when the cervix had been divided by the knife intentionally? a question which nobody appears to have answered; although, during the last ten years, the cervix uteri has been most freely divided in every direction with knives, hysterotomes and Küchenmeister's scissors, by a great many who were present, for dysmenorrhœa, stenosis, and various flexions and other affections of the uterus, and perhaps by no one more often than Dr. Marion Sims.

In conclusion, I must express my conviction that in this country at all events, conservative surgery, such as Dr. Pallen recommends, is very seldom necessary; and I feel sure that most British practitioners would only have recourse to it as a *dernier ressort* when milder methods of treatment have failed.

In gynæcology, as in statesmanship, the truest conservatism often consists in "letting well alone."

CLINICAL EXPERIENCES OF PUERPERAL FEVER.

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(Concluded from page 650.)

WHATEVER may be the influence of alcohol in other fevers, I am certain it is of the utmost value in the one we are considering. Given alone, it will sometimes lower temperature; the conservative function it exercises on tissue makes it a most useful, if not

an absolutely indispensable, adjuvant in treating child-bed fever. In certain cases the stomach will tolerate brandy and iced water when everything else is rejected. I prefer, as a general rule, to give it in a concentrated form, such as brandy, or good Scotch or Irish whisky. Well-boiled milk, gruel, plain milk, weak beef or chicken tea, are, in many cases, most convenient and excellent accompaniments.

Opium, in one or other form, is the most powerful combatant to the intense nervous symptoms which almost invariably are met with. A good dose of solid or powdered opium, or of the solutions of the hydrochlorate or acetate of morphia, will often ensure sleep, relieve pain, check intestinal movements, abate or stop diarrhœa and vomiting, when every other remedy is powerless. Should the stomach reject the drug, the hypodermic administration may be equally serviceable. In mild cases, I have seen a mixture of liquor morph. hydroch. $\mathfrak{z}\text{ij}$, with $\mathfrak{v}$ of spt. ætheris nitros., given in teaspoonful doses every three hours, do much good. The external application of warm laudanum, on cotton wool, to the abdomen, after the application of stupes, is often of great benefit.

Nitrate of potash was used in some cases. I do not pretend to say whether, as has been alleged, it influences the formation of fibrin in the blood ; but its diuretic action was at times of service. The sweet spirits of nitre was a favourite preparation. I have used sulphite of soda more than once, but am not satisfied that it was in any way beneficial.

Of mercurial drugs, grey powder was once or twice used in the earlier cases ; no good attended its exhibition. Calomel, if given in one single sufficient dose at the commencement of illness, appeared to be of some use ; yet, beyond its ordinary cholagogue, diuretic, and partially emmenagogue action, it has no specific power. I believe great harm has been, nay is, done, to many a woman in child-bed, by not a few practitioners, by such treatment as is consequent on the superstitious faith reposed in the curative power of large doses of mercury. From what we know of the state of the blood in the puerperal condition, and of the influence of mercury on the red corpuscles, we should be chary of taking too great liberty with so powerful a drug.

Other drugs are doubtless important. I latterly employed carbolic acid ; but, as my experience is only derived from one or two cases, I do not consider it sufficient to justify more than a

simple expression of opinion that it is worthy of trial. The efficacy of "Warburg's tincture" has been mentioned by some, I have never employed it.

Purgatives have been recommended in puerperal fever on the "eliminative theory;" to this intent calomel, castor-oil, senna, seidlitz-powders, salts of magnesia, &c. &c., have been prescribed. I have used some of these, but regret having done so, more than once. A single dose of castor-oil has commenced an intractable diarrhœa which has only ceased with the life of the patient. If, after one dose of calomel of ten grains, it is desired to open the bowels, giving an enema of tepid water, with or without soap, will be the safest and best means of effecting our object.

Emetics have been advised, notably by French authors, and that as recently as 1875 by Triaère.* I had generally enough to do controlling sickness, without provoking it; besides, I fail to understand their scientific employment.

Nourishment must of course be attended to, according to the discretion of the physician and exigencies of the case. Often repeated small quantities are usually better borne than attempts to give much at longer intervals.

What may be called local measures must not be neglected. These are external abdominal applications, and vaginal or utero-vaginal injections. Of the first named, I found turpentine stupes most efficacious. Whisky stupes were sometimes used. After the application of the turpentine, warm simple stupes of flannel were used, till severe smarting was felt. Poulticing with oatmeal, and linseed-meal mixed with mustard, often gave relief, the advantages of the poultice being that, as heat was longer retained, the patient was less frequently disturbed. But, on the other hand, the much greater weight than that of stupes was a decided objection to their universal application. On one occasion I blistered the whole abdomen with cantharides, and more frequently I used iodine for a like purpose. I do not think any good came of blistering in acute cases, although in protracted cases, with ovarian enlargement, small, often-repeated fly blisters, or painting with iodine, is unquestionably correct treatment.

Leeches were applied in a few cases when metritis or peritonitis complicated the fever. Leeching is of far less benefit in such cases than in inflammation from exposure to cold or traumatic

* "Sur le Traitement Préventif de la Fièvre Puérpérale," par le Docteur Paul Triaère.

injury. My extended experience led me wholly to discontinue their application in fever.

I never tried general bleeding. The exhibition of turpentine found much favour at one time. Brennan of Dublin, and Edward Copeman* strongly advocated its employment.

Cold applications have been useful in the hands of Hüfeland, Van Swieten, Behier, &c., yet the more or less needful apparatus, and the difficulty experienced in private practice in carrying out such treatment, dissuaded me from its employment. At the same time, if I again had a very bad case, I would be inclined to try the cold bath or ice water stupes.

Injections of warm fluids, particularly of disinfectants, such as carbolic acid or permanganate of potash, in solution, are of vast utility. They deodorize the lochia, re-establish the flow if suppressed, prevent further autogenous infection (if such has happened), heal lacerations, and thus prevent mischief and ameliorate the patient's condition in many ways. For successful injection, a proper syringe, such as Higginson's, should be employed; the tube should be well introduced within the vagina, and, if the os is freely pervious, carefully into the uterus; the fluid must return easily, its temperature about $85-95^{\circ}$, and the injection must be used at *least* thrice daily. It is perfectly wonderful what good may be done by a persevering continuance of warm injections.

In the after-period of recovery, the exhibition of the mineral acids and iron is of great service. The old preparation of the solution of muriate of iron is much lauded by some in the acute stages of the disease.

In concluding this brief sketchy account of treatment, I wish to state that I have only dwelt on the points of primary importance, and have greatly curtailed much that is of very ordinary experience. Yet I cannot conclude these paragraphs without remarking that the persistent intelligent employment of some of these remedies has saved what seemed most hopeless cases; and that although we can claim no drug as a specific in puerperal fever, we have many which, in the hands of observant physicians, may frequently tide the patient over this awful and desperate disease.

Prophylaxis, or the best means of preventing the dangers of puerperal fever to our clientelle, must ever occupy an important place in the consideration of these phenomena.

* "Records of Obstetric Practice," p. 17.

I conceive that too great stress, if not from a practical, at least from a scientific, stand-point, has been laid on the danger of contagion. When we have statements like that of Churchill,* who, with forty years' experience, such as his was, never knew of his carrying contagion from patient to patient, and that of Dr. Alfred McClintock,† who, with a quarter of a century's practice, "can conscientiously aver that in no single instance were there the remotest grounds for supposing that I carried contagion to a patient," we must not dash haphazard at the conclusion that, because a patient has contracted fever, she has done so by means of contagion.

Yet, if one single woman of the mighty holocaust which has been destroyed on the altar of zymotic metria, has died from the poisonous hand of her trusted attendant, and of this, alas! there is absolutely no denial, then the blood of these unfortunate victims, numbered by hundreds, cries aloud to science for redress. It is easy to pertinaciously adhere to a preconceived theory regarding contagion as the cause of all cases; to insinuate or sneer against every other theory offered; but it is as easy, like the celebrated Dr. Sangrado of Madrid, who figures in the history of Gil Blas, to account for death, after death, by any other means than what is really the true one. We all recognize the distress, nay indignation, with which a fond mother receives our warning, lest *her* child may prove a focus of dire disease; another's may—aye, and how carefully will she guard her nursling against such a risk—but that her very own particular nursling could possibly prove a destroyer of other little loved ones! Perish the thought, she cannot entertain it. Are there not scientific parents; are there not theoretical children? "*Verbum satis est sapientii.*"

On the other hand, what can be more trying, more embarrassing, more pitiful, than the spectacle of a physician who is faithful, courageous, conscientious; who is depressed, tortured, haunted by the constantly-recurring thought that he must either continue a deadly course of scientific slaughter or resign temporarily, mayhap permanently, a position which has taken many weary years to gain? And this, alas! for human nature, is not all; let any one who reads these pages recall to memory if ever he has been unfortunate in having several cases of puerperal fever, then let him reflect if his best efforts—his, in many instances, total self-

* *Brit. Med. Journ.*, p. 380, March, 1876.

† *Dublin Quarterly Journal*, Aug. 1869.

abnegation—met with the encouragement or appreciation they so well merited. Did his clients repose every confidence in him as of yore? Did not scandal or envy, with the pronged tongue of jealous hate, try to steal away his fair fame? And the men of all others who should have supported him, did they, his professional brethren, deal kindly and honourably with him? Did they exercise their scientific knowledge, or give their friendly counsel to him? Did they endeavour with just truths to palliate the evil of popular clamour? did they own that such cases might happen, had happened, or were happening in their own practices? If such has been the experience of any one, then, indeed, he is to be envied.

The consideration of prophylaxis is truly, then, of paramount import. Well must the matter be weighed; we ought surely here to permit no laxity in our judgment. I question if it is altogether possible to eradicate child-bed fever from the long list of human diseases. I do not refer to autogenous pyæmias or traumatism here, but solely to endemic or epidemic fever. It has come in the past, it may come again; lives have been lost, but others may be saved. To this intent we would desire to indicate the general and particular precautionary measures which demand attention.

Let us suppose that puerperal fever has, without seeming cause, appeared in a locality, what are the general indications for its repression? Firstly, there are the general details of treatment which regulate our conduct in every accouchement. These are:—the termination of parturition within as short time as is consistent with the maternal safety and well-being. “Meddlesome midwifery is bad,” says Blundell. “Delayed delivery is dreadfully dangerous” is our present motto. The compression, or at least support, of the uterus towards the end of the second stage; the constant maintenance of uterine pressure till the completion of the third; the still continued uterine support, or mayhap abdominal or vagino-abdominal pressure, or friction, till a hard persistent uterine contraction is established; at the same time, the removal of all large coagula from the vagina or lower uterine segment; the nice application of a firm abdominal bandage next the skin, and of a clean warm napkin to the vulva; evening and morning vulvar ablutions (I generally employ whisky and water) for at least three days; also the due protection of the bedding and the removal of all dirty bed- or wearing- clothes which have been soiled; in some cases giving ergot before the completion of, or after, the third stage;

the use of vaginal douches ; mild purgation on the third day if required ; the arrest of excessive after-pains ; with close attention, by posture, to the lochial and cystic discharges. The broader points of hygiene, of ventilation, dietary, quietude ; also the advisability of rest in the recumbent position for a reasonable period, will be understood ; in brief, we require, in general, due attention to the carrying out of the adequate modern treatment of the recently delivered woman. But I have supposed that puerperal fever has broken out : is there nothing special we can do ? I think, to parody the advice of the great orator, there are three great things necessary—careful attention, careful attention, careful attention. Following our previous arrangement, we may slightly elaborate the interpretation of the thing required. As regards the termination of labour, from personal knowledge I am convinced that even unwonted haste is preferable to protracted delivery. One of the greatest factors producing fever is mental anxiety combined with physical exhaustion. The properly applied forceps causing but little, if any, more laceration or pressure injury than occurs in natural labours, is much less to be dreaded than the fatally-mistaken expectant policy of non-interference. We must also be vigilant, lest there is a drop more blood lost than can be avoided ; yet that every shred of membrane and coagulum of blood within reach be removed. Should there be any suspicion that there is inefficient uterine contraction, I think it is wise to give 20 minims of extract of ergot with 5 of liquor strychniæ and 10 to 15 of solution of perchloride, or dialysed iron every four hours. Vaginal or utero-vaginal douches of a tepid solution of Condyl's fluid or carbolic acid should be administered every eight hours ; in private practice ladies sometimes object to this at first, as an annoyance, imagining that unless they are ill the operation is unnecessary. I always found that a little persuasion and explanation overcame this objection. So advisable is perfect, sweet-smelling cleanliness, that, when practicable, I think it wise to remove the patient after delivery into a clean well-aired warm bed ; or to allow her to "change the end of the bed," replacing all stained clothes with clean, and this must be observed, if required, day after day. The excretions of the bowels and bladder demand close notice, as either a distended bladder or deranged stomach may induce serious irritation. The child should be applied to the breast early if the mother is able for it. In the absence of a trained nurse we must be very watchful against the

simplest things, as injudicious stimulation from food or drink. I have often seen harm from the absurd popular notions regarding "the supports" needed by a puerperal woman. Give us air and plenty of it, scout every unreasonable prejudice of antediluvian friends and nurses against ventilation; there is far more danger from too little than from too much air. It is almost redundant to mention that all parturient women must, in the most perfectly possible manner, be protected from every miasmatic or contagious influence; that if unfortunately any infectious disease prevails in the house or immediate neighbourhood, either *before* or after labour, she must be kept apart from it. Let the nurse have absolutely no intercourse with the slightest form of infectious disease; let the lying-in chamber be deodorized and purified of every obnoxious smell; let all excreta be immediately removed from the apartment. In the houses of the poor, guard against the highly objectionable habit of several members of the family, perhaps three or four children besides the husband, resuming their places in the mother's bed within a day or two after delivery.

Nevertheless, despite these precautions, should our patient's pulse quicken, the temperature rise, and vague abdominal pains be felt, when we have satisfied ourselves that none of these foregoing points have been neglected, a few more prophylactics remain; these I only mention as they have been already treated of. By quinine and opium, with turpentine stupes, an attack may be so stifled in its birth that we afterwards almost doubt its reality. In my own experience, and the practices of some of my friends, not a few illustrations of this have been observed. But still our patient may not escape: then we must guard against its further dissemination. This is done by isolation of the sufferer; and personal disinfection of the accoucheur, of his instruments employed, of any of his clothing or belongings, in short, all that has in any way been connected with the case, immediately or shortly after delivery. The isolation of the patient is advisable for her own sake, as has formerly been shown; the statistics of maternity hospitals but too clearly illustrate the necessity for this procedure. But in isolating a patient do not treat her as an unclean thing, as one fated to succumb to a pestilent disease. Do not let humanity be outraged by a morbid hyper-sensitiveness which too closely cleaves to one idea of protection. Once again I recapitulate that traumatism resulting in pyæmia, or septicæmia, or simple sporadic autogenous

septicæmia is rarely, if ever, contagious. In stating this, my opinion is supported by the most distinguished authorities.

I do not believe that it is, with our present knowledge, possible to stamp out puerperal fever : sometimes we may seem to do so, as also in scarlatina or measles, by rigidly observing every known protection ; by extreme care we may nip an epidemic in the bud, but, as in any epidemic disease, if a few decided examples are met with, we can only check, we cannot wholly control the further sequence of cases. The personal disinfection of a physician who has met with two consecutive cases of puerperal fever is so plainly a *sine quâ non* to a reasonable prophylaxis that it amounts to a paramount duty incumbent on him. A body bath should be frequently taken ; all clothing worn at the delivery of fever cases should be dispensed with till it has been thoroughly disinfected ; one suit should be set apart for paying visits to fever cases, and if, as according to some, light clothes are less likely to carry contagion these should be preferred. After the examination, which should not be more lengthy or minute than the diagnosis absolutely demands, the hands should be well washed in a disinfective fluid, the nails kept short and clean, no gloves worn. Fumigation with iodine has been recommended by Williams.

Fever cases should, as far as possible, be visited after we have seen other puerperal patients, so as to satisfy ourselves and protect our clients the better ; and in certain circumstances it is wise to decline obstetric engagements. The period of intermission from such work has been variously stated, some say a month, some ten days.

Dr. Matthews Duncan, as well as many other distinguished obstetricians, does not consider it absolutely necessary to discontinue attendance on midwifery ; excepting for the purpose of protecting ourselves from malicious suspicions I own to holding much the same view. My own experience justifies me in stating that, with the utmost care in disinfection, and total suspension from practice for upwards of five weeks, there is no certainty of our patients' immunity from puerperal fever.

In a pamphlet published in 1875 I suggested that forceps should be electro-plated to prevent the formation or adherence of rust or blood spots which will sometimes be found on the best kept plain steel instruments. The forceps should also be steeped in a disinfectant after being used. It is advisable to soak the clothing of attendants and of the lying-in couch for ten days in

a solution of permanganate of potash and cold water, after which they should be exposed to air for a like period, and finally fumigated with sulphur.

Additional considerations deserve attention. Hospitalism, or the aggregation of numbers of parturient women, may be a crying deadly evil, instead of a human blessing. Those who are interested in this question will find abundance of writing and elaborated statistics in "*Hospitalism and Zymotic Diseases.*"* Doubtless, although an almost passionate enthusiasm has to a considerable extent exaggerated the evil and blinded the matured scientific vision of certain physicians, there is evidently good reason to desire a more perfect facility in undertaking and effecting satisfactory hygiene in lying-in hospitals than prevails in many institutions devoted to this end.

Again, the great benefits resulting to communities from good drainage, the suppression of pig-styes, ash-pits and such like pestiferous nuisances, are not less worthy of remembrance. The common weal must not be lost sight of in the more imperative individual precautionary measures. To this effect, Dr. Braxton Hicks,† after enunciating the wisdom of treating every case as contagious till we can learn whether it is so or not, pertinently remarks, "If Dr. Napier be able upon the early days of a case to pronounce one way or the other, I am sure he will be rendering great service to the profession by showing the distinction." The task imposed is not an easy one, when we reflect that the incubative period of every continued fever is more or less liable to variation; when we see in cases of pyæmia "the result of a specific poison,"‡ that this stage of incubation varies from two to fourteen days; and further, when we recall to memory that our most painstaking discrimination, in the early days of many a case, is often futile in determining far more evident facts than these. I am unable to boast that I have fulfilled my task; nevertheless, those who have honoured me with a careful perusal of the above, will own that if exactitude may not with our present knowledge be reached, still a fairly accurate judgment may be formed.

I have some hesitation in the present instance in directing attention to a fact which has been evident for a long time to all

* Every Kennedy, London and Dublin, 1869.

† *Brit. Med. Journ.*, April 1st, 1876.

‡ Aitken's "*Science and Practice of Medicine*," vol. i. p. 786.

who have read the history of science—viz., that medical opinion is not above the imputation of following the prevailing “fashion” of the epoch. The history of depletions, mercurials, vesications, cauterizations, the divergent views held anent enteric fever, typhus, cholera, leprosy, and plague—as well as other patent examples which I might cite, but let these suffice—will well illustrate my meaning. All change is not improvement. Am I justified in writing that this same “fashion,” which may alike turn the heads of silly maids and learned doctors, has perhaps carried us slightly farther in our theories regarding puerperal fever than our deliberate judgments will hereafter consent to. Such, at least, has been the conviction forced upon me by the attentive study of much diversity of opinions, which are all in some measure entitled to the sincerest respect, and this, to a great extent, has determined the publication of these pages.

Finally, let us remember, that it is well now and again to retrace our hasty steps, and that, although the steam-engine of scientific research is a most powerful and beautiful creation, the brake of careful inquiry is all-important for its stoppage at the grand terminus of all the lines of Science—Truth.

THE LONG AND SHORT FORCEPS IN MIDWIFERY :

BEING A ROUGH ANALYSIS OF 200 FORCEPS DELIVERIES.*

By JAMES MORE, M.D.

THOUGH the subject of Forceps Delivery in Midwifery is one which may be said to be pretty well threshed out, still there are points connected with this interesting subject which do not yet seem to be quite settled. Every busy practitioner has something to say for himself in the matter—some experience to give, some note of warning to sound, or even, as in my own case, a confession to make.

Coming forward, then, more in the way of confessing my obstetric sins than as offering any guide to future practice, I hope you will excuse the fragmentary character of my remarks, and remember, above all things, that I speak from the platform of the village doctor. He who practises midwifery in the country gains

* Read before the South Midland Branch of the British Medical Association at Luton, October, 1880.

his experience in the hardest of all schools ; and there is perhaps a danger that his very isolation may lead to a strain of dogmatism in his character, and give him an overweening confidence in his own rules and methods of treatment.

Since commencing practice, over twenty years ago, I have had 200 *forceps deliveries*. Of these I have kept an accurate record, the notes being either written before leaving the house, or immediately on getting home.

One idea has gradually forced itself upon my attention during these toiling years, and that is the folly, I had almost said the sin, of leaving too much to *Nature*—in short, that as society is constituted in the present day Nature in reference to Labour is rather disappointing. Physiologically speaking, Nature has many organic instincts and tendencies, and none so pronounced as the tendency to complete in a given time and in a given way the process of Parturition. This, like most other instincts, would be infallible in its operation, provided the surroundings were always the same. But such is far from being the case, and, under new or abnormal conditions, Nature, I am afraid, descends to the level of the fallible and sometimes blundering practitioner.

We are all agreed that there is such a thing as *meddlesome midwifery*, though we are not so alive to the fact that there is in the practice of the day such a thing as culpable, do-nothing, or even cowardly expectancy. "Leave all to Nature," is a comforting and soothing doctrine, and fits in well with the hesitating nature of the badly educated accoucheur. Educated in what Dr. Barnes calls the "procrastinating school"—*i.e.*, the expectant or do-nothing school—I for many years trusted, with a childlike confidence, in the unbounded resources of Mother Nature, waiting patiently and in hope, and thinking nothing of keeping my suffering patients ten, twenty, or even thirty hours in sore labour.

But such expectancy, I believe, is becoming a thing of the past, and the art of midwifery is advancing like everything else. Our best and most advanced teachers now tell us that the process of parturition, though physiological in its mechanism, is yet often pathological in its results.

Every one in midwifery practice, of course, meets with cases which, from beginning to end, are absolutely natural in all their stages. It is, however, wonderful, and indeed startling, to think that in this nineteenth century such fortunate labours are not far removed from being the exception and not the rule.

A very large proportion of midwifery cases demand the help of the intelligent accoucheur. Since the days of Smellie down to our own illustrious Barnes, the long double-curved forceps stands prominently forward, as the instrument of all others, scientifically fitted to meet the requirements of the obstetric surgeon.

To compare the long and the short forceps together is to compare things completely incongruous ; the one being an instrument almost perfect in its power of scientific adaptation ; the other being essentially useless and having no *raison d'être* in the obstetric bag. And yet, the short single-curved forceps is, I am afraid, the *only* instrument seen in the hands of many country doctors. Indeed, according to Dr. Barnes, the long instrument was perhaps better understood one hundred years ago than it is in the present day.

How this retrograde movement in practice commenced it is difficult to understand, unless it be the rage for invention : every teacher of midwifery feeling obliged to startle the world, not only with some modification of that already almost perfect instrument, the long forceps, but at the same time to bring forth an *anachronism* in the shape of a short forceps.

For many years I used Sir James Simpson's short forceps, nor can I well forgive myself for using it for so long, nor him for the invention.

A painful experience obliges me to confess that in not a few cases the *perforator* had to finish what this most useless instrument had begun. In looking over my register I find it credits me with seven craniotomy cases, most of which I am afraid were due to simple inefficiency and want of power in the instruments used. It is now some years since I discarded this toy and took to the long double-curved forceps, and I am glad to say that, with one exception (a case of vaginal cystocele), I have not had a single case of craniotomy.

Of course, I do not mean that I ever attempted the high operation with the short forceps, but these were mostly cases where the head was within reach, yet from want of power, or rather, inherent weakness, it failed in accomplishing that which I have since found to be easy and safe, with the larger and more powerful instrument.

Again, though so small and handy-looking, the short instrument is really not of so easy application, for ordinary cases, as the long double-curved forceps. In some of my cases, notably in two cases of convulsions, I had the greatest difficulty in keeping the

patients quiet *and near enough the edge* of the bed, and that though they were under the influence of chloroform.

The pelvic curve in the long instrument makes its application, even in the middle of the bed, a matter of little or no difficulty. This pelvic curve also does away with the necessity of paying such strict attention to the position of the head, for the blades, of course, must be placed in one or other of the oblique diameters, and nearly parallel with the sides of the pelvis. It is in this position the blades have most room, and they naturally and easily glide into these spaces in the ordinary presentations.

This rule, or rather fact, has been my guide in most, if not all, of my 200 cases. It follows from this lateral introduction that the grasp of the blades will always be oblique in reference to the head. Thus I almost invariably found that when the head was in the

First Position

the upper and posterior blade grasped the right forehead, the lower and anterior blade grasped the left occiput.

When in the Second Position

the upper and anterior blade grasped the right occiput, the lower and posterior blade grasped the left forehead.

In other words, the *upper* blade grasped the forehead in *first* positions, and the occiput in the *second* positions; just as the *lower* blade grasped the occiput in *first* positions, and the forehead in *second* positions.

This may look like a Chinese puzzle, and of no practical value, but I think it justifies the rule of always introducing the long forceps in reference *only* to the sides of the pelvis. The oblique grasp of the head is the true and legitimate one, and is in strict accordance with the mechanism which guides the head through the pelvic canal.

A purely lateral grasp of the head is still taught and practised by some, but I need not remind you that the oblique grasp of head was long ago pointed out by Smellie, insisted on by Simpson, and is still taught by Barnes, Playfair and other leaders in the art. An apparent exception to this rule is of course found in cases where the head is quite down on the perinæum, and in the ordinary position of face looking directly backwards to the sacrum. Here the grasp, as a rule, is more on the lateral aspects of the head, one blade being before one ear, the other behind the opposite one.

Like others, I have applied the blades transversely—*i.e.*, over the ears of the child—in order to rotate in cases of occipito-posterior position where, from some cause, natural rotation into occipito-anterior position had been arrested. This I now believe to be seldom necessary, as the pelvic curve in Simpson's long forceps (the instrument I have chiefly used) is so slight, that *traction alone with the oblique grasp* will bring the head into its proper position.

The degree or amount of force that is justifiable in using midwifery forceps is still, I am afraid, a matter of opinion. Dr. Duke, of the Rotunda Hospital, Dublin, mentions (in our *Journal*, Feb. 1879) an instance, where in a long-forceps operation an extra accoucheur had to be put on, who by grasping the first round the waist helped in completing the delivery, "with no detriment to mother or child." To obviate the necessity for such an obstetric team, Dr. Duke has introduced a pair of tractors, which no doubt must greatly increase the tractile power of the forceps. But it is questionable if such increased tractile power is even necessary. With a Barnes's or a Simpson's long double-curved instrument, as much power can be exercised by a skilful accoucheur as is ever necessary or justifiable.

With the mare and the cow, the amount of tractile force brought safely to bear on the poor parturient is something marvellous. Strong ropes attached to the fœtus, and dragged at by relays of men, or even by a horse, is a tug of war within the experience of country farriers.

But though boundary lines (even geographical) are always difficult to define, there must, in the parturient woman, be a scientific boundary line somewhere; and I think the experience of most practical accoucheurs will bear me out in limiting the justifiable tractile power in delivery to one pair of hands and a good, scientifically made and applied, long double-curved forceps.

Nor does this exactly define what degree of force one may use. In many of these forceps cases of mine, I used all the force or strength I had. One thing is certain, the more powerful the instrument the less force is apparently necessary; at all events, it is used with greater advantage to the patient, and with less muscular fatigue to the operator. With the long forceps we come to the bedside with potential power enough to do any operation which is justifiable in forceps delivery. In the short forceps we lack that reserve of power; and as weakness in an instrument

may mean the exertion of undue force on the part of the operator, the child is either delivered at the expense of the maternal passages, or, what is more probable, it is left to the tender mercies of the perforator.

In the words of Barnes, "A weak instrument is, by the mere fact of its weakness, restricted to a very limited class of cases. In the second place, if the instrument is weak, it calls for more muscular force on the part of the operator. The faculty of accurate graduation of power depends upon having a reserve of power. Violence is the result of struggling feebleness, not of conscious power."

In the compass of a short Paper it would be impossible, were it even desirable, to give anything like an intelligent *analysis* of these 200 forceps deliveries; but I hope you will bear with me if, before concluding, I point out one or two of the more prominent analytical features of the series, for these will further tend, I hope, to illustrate the more immediate subject under consideration.

The entire number of labours attended since I began to register them is something over 2000, so that the forceps cases came in the ratio of something like one in ten.

This may seem a heavy proportion, and may cast the imputation upon me that I have interfered unnecessarily with the special work of our venerable mother, Nature. But my conscience acquits me on this score, and, judging from the ripe experience of some of my confrères, I am inclined to the opinion, that in some districts, and under certain social conditions, instrumental delivery may be more frequently called for than in others.

In my own neighbourhood, it is certain that easy, natural, and uncomplicated *first* labours, especially amongst the working classes, are not by any means of very frequent occurrence. Thus of the 200 forceps deliveries, fifty-five were *first* labours (over one-fourth), ranging from sixteen to forty-two years of age. Instruments were called for in these, chiefly for small or contracted pelvis, rigidity of pelvic lining, or for obstruction on the part of the child, leading to uterine fatigue.

The girls in my district all go to factory work when very young as machinists, working the treadles of their sewing-machines with one or both feet, and to my knowledge bringing on *uterine* troubles in the shape of dysmenorrhœa, local pelvic congestions, and even displacement of the organ itself. Here an element of parturient

disturbance is at once introduced, and raises my average of tedious and complicated labours.

To add to this, the factory hands, as a rule, are well off, and rush into the perils of maternity, if not of matrimony, at too early an age, and before their pelvic organs have arrived at full maturity.

I had to resort to forceps in a large proportion of my cases for *simple inertia* of the uterus—the pains either having originally no driving power, or losing their force and character for some reason not apparent, though the passages were free and ready for the transmission of the child.

In a second series of cases there was *inertia of a secondary character*—uterine fatigue, arising from obstruction to labour, either from increased size of child, malposition, smallness of pelvic passage, rigidity and swelling of pelvic lining.

There was obstruction to natural delivery in one case from the presence of a large, soft vaginal tumour. In this case I succeeded in dragging the head over the swelling. Mother and child both did well.

One woman I delivered nine times, and another four times, for protrusion of the coccyx into pelvic cavity; eight of the children being saved.

Three times I had to deliver at the upper strait for puerperal convulsions. The mothers and children saved.

In one case of vaginal cystocele I failed to deliver with the long forceps, and had to complete the labour by perforation and turning.

In the 200 forceps cases I had *two maternal* deaths. One from peritonitis, where the case had been too long in the hands of a midwife, before instrumental delivery; the second, a case of phthisis, dying the second week, with suspicious symptoms of septicæmia due, I believed at the time, to laceration of perinæum.

Of infantile deaths I had seventeen. Seven of these were craniotomy cases after failure with short forceps (five occurring in primiparæ). Of the seventeen children lost, two had complete ossification of the skull, three were putrid when delivered, one hydrocephalic, three simply still-born—I suppose from compression, not of forceps, but of uterus. One death I confess was clearly due to the upper blade of forceps compressing the cord, which was twice convoluted round the neck.

This may seem a large infantile loss in the 200 cases, but it

must be remembered that many of the poor women had been in the hands of the local midwives too long before I was sent for.

Of injury to the child, I have to confess to causing a deep dent or cut in the forehead in three cases, where the grasp of the forceps was too much in the occipito-frontal diameter. All the three cases were just engaged in the brim and in primiparæ—the pelves, though not contracted, were of the male type and delivery was a matter of great difficulty. All these children did well.

Sub-pericranial scalp tumours of great size appeared in two of the children—these also were born of primiparæ with narrow pelves. The forceps was introduced very high up, and I suppose the grasp was also too much in the occipito-frontal diameter of the head, thereby causing bilateral bulging and undue pressure of the foetal head against the pelvic walls. These enormous tumours entirely disappeared in about six weeks, without treatment of any kind.

Of injury to the mother, I am conscious of causing laceration of perinæum in three cases. One case by too quick delivery; the second in the case of a woman who was well-up in years before she became pregnant, being forty-two years of age. In the third the laceration was caused by the shoulders of the child. When the head was born, and just when I was removing the forceps, the child was shot into the middle of the bed, lacerating the perinæum nearly to the anus, and breaking the cord short off at the belly: the child dying of hæmorrhage before it could be arrested.

The catheter was used only four times in all the two hundred cases, either before or after delivery. I am aware that the use of the catheter, before forceps delivery, is enjoined by all or most teachers of midwifery. In my own practice, I have never yet found the reason nor the necessity for it; nor, with the exception of one or two instances, where the head had been allowed to remain impacted, have I seen anything that could be dignified with the name of distended bladder.

Of course, I take care that my patient is not suffering from this complication, and where I have found such a thing, it has generally been in cases where delivery by forceps has been delayed too long. Catheterism is always a disagreeable operation to the patient in labour; in many cases, it is one of no small difficulty and trouble to the accoucheur.

Though sometimes a cause, it is oftener a result of protracted second stage, and my experience is, that the more frequent and

timely use of the forceps does away with the necessity of interference of this kind.

Again, I may remark that the mere fact of the patient being able to pass water *unaided* after forceps delivery, is a good test in my eyes that she has suffered little or no injury during the transit of the child.

In only four cases did I use *chloroform* to surgical anæsthesia, and I think I am correct in saying that, with the exception of some primiparæ, the forceps did not add much, if any, to the suffering of the patient.

Of the 200 cases, twenty-six were at, or just engaged in, the *brim*; thirty-nine in the upper part of cavity; and the rest (135) on the floor of pelvis, or quite down on the perinæum.

As before remarked, the forceps were always applied in relation to the sides of the pelvis, without special reference to the exact position of the head. The latter was in some cases *not* ascertained at all, and I failed in making out the position from the fontanelle or sutures if I did not think it necessary to push my finger up to feel the ear.

In some cases where delay arose from *non-rotation*, I used the forceps to rectify the position, and where this arose from too great obliquity of head in pelvic cavity, the ear could be felt without using any force whatever.

In three cases of excessive rigidity of passages I had to use Barnes's hydrostatic dilators before I could reach the head. These women recovered without a check, and the children were saved.

In some cases, on the other hand, of excessive relaxation of pelvic lining, I found great difficulty in introducing the blades at all; but this may have been accidental with me, as I have not noticed this as a difficulty in the practice of others.

My experience of ergot as an aid to delivery, or rather as a substitute for forceps, is decidedly unfavourable. To be of use it must be given in large or repeated doses, and when it does act, it often, as is well known, kills the child, not only by the uterine tetany it causes, but as often by constricting the fœtal arterioles. I saw a case lately where it was given by an assistant of mine. Everything was favourable to delivery, but the pains were weak and irregular—the third dose brought on intense uterine contraction. All the weak irregular pains seemed merged into one prolonged spasm, the uterus remaining hard as a board for ten or fifteen minutes before delivery took place. The child was dead

from placental pressure, squeezed to death in short, by the force of the uterine tetany.

Before concluding these rough notes, I would crave your indulgence for any seeming spirit of dogmatism or egotism which may have cropped up. Though not claiming anything like originality, or even intrinsic value for these records, I do offer them as a *true history*, for, in a practical every-day subject like midwifery, the experience of even the meanest practitioner may come to have, even in its blunders, a certain value, and may help in advancing this most interesting of all departments of medicine.

ON A DISORDER OF MICTURITION IN WOMEN.

By W. K. McMORDIE, M.D.

Physician to the Samaritan Hospital for Women, Belfast ; Examiner in Midwifery and Diseases of Women, Queen's University in Ireland.

I HAVE just read an interesting paper on the above subject by Dr. Lawrence, in the April number of the OBSTETRICAL JOURNAL. A case has occurred in my practice during the past summer which I think worth noticing. A girl, aged seventeen, was brought to me by her mother, who stated she had suffered every night for the past five years from incontinence of urine. She first menstruated at fifteen, and the periods had returned with regularity up to the time I saw her. There was a constant leucorrhœal discharge. I made a vaginal examination and found a granular os and cervix uteri. I applied nitro-muriatic acid. During the next fortnight the nocturnal incontinence decreased in frequency. I afterwards used milder applications to the os and cervix, which rapidly returned to a healthy state, and the incontinence entirely disappeared. She was completely restored to health within two months from the time I first saw her.

This case is interesting from two points of view :—

1. Showing how the bladder may be affected in uterine affections.

2. Granular os occurring three years before puberty. This, of course, is on the supposition that the cause of the nocturnal incontinence was the same before puberty as at the time I was consulted.

Notices and Reviews of Books.

A Practical Treatise on Tumours of the Mammary Gland. By Samuel A. Gross, A.M., M.D. London: H. K. Lewis, Gower Street.

THIS book—well-printed, written in a clear, intelligible style, and illustrated with original drawings—forms a very useful addition to the literature of mammary tumours. The author has enlarged his own considerable experience by a careful compilation from American, English, French and German works upon the subject, and has endeavoured to classify this large quantity of material on a histological basis. Dividing tumours of the breast into neoplasms and cysts, he subdivides the former into fibroma, sarcoma, myxoma, adenoma and carcinoma. Adenoma is deposited from the position it usually occupies in systematic works, as, according to the author, “with the exception of myxoma, there is not a single neoplasm which is so uncommon as genuine adenoma.” The tumours usually so-called are classed as fibromata, and their glandular elements are regarded, not as of new formation, but as pre-existing parts of the gland surrounded by the new growth which springs from the fibrous tissue of the breast.

The life-history and metamorphoses and complications of each class are well described. The chapter on Carcinoma is naturally the longest. Admitting that the histogenesis of cancer is still a matter of dispute, the author expresses himself in favour of the exclusive derivation from the glandular apparatus. He lays considerable, perhaps undue, stress upon retraction of the nipple as a diagnostic sign, and distinguishes between the retraction, the result of cancer, and the depression, the result of upgrowth of other neoplasms.

The chapter on Diagnosis is very good, but in practice it would probably be found that the distinction between different tumours cannot before removal be so readily determined.

As regards treatment, removal by operation is the chief mode recommended; and the utility of this, in case of cancer, mainly depends upon the care with which all the possibly infected parts are removed. Careful exploration of the axilla, and removal of any suspected lymphatic glands, are rightly insisted upon; statistics clearly proving that recurrence is much less frequent in

such cases than in cases where the mammary gland has alone been removed.

The author is courageous enough, in these days when antiseptic surgery is so much the fashion, to confess that in removing the breast he never resorts to antiseptic precautions. Statistics, so far as they go, show scarcely any difference in the mortality of antiseptic and non-antiseptic cases.

There are some blemishes in this book. An English reader will not learn much as to the size of a sarcoma by reading that it was as large as a hickory nut. Again, judged by the high standard of microscopic drawing, of which we have happily now so many examples, the illustrations are decidedly not good. This is especially to be observed in the illustrations of Carcinoma, where the nuclei of the cells are admittedly alone delineated. Nevertheless, the book shows throughout evidence of good and careful work, and will be read with pleasure and advantage by all who consult it.

Abstracts of Societies' Proceedings.

OBSTETRICAL SOCIETY OF LONDON.

Meeting, Wednesday, November 3, 1880.

DR. W. S. PLAYFAIR, *President, in the Chair.*

Case of Pyometra.

Dr. GALABIN showed microscopic sections from a case of pyometra, from a woman aged seventy, who died after an operation for hernia. The uterus was distended into a cavity three inches in diameter, full of pus, the cervical canal being free. The naked-eye appearance was that of inflammation only, but microscopic sections revealed the presence of carcinoma. In the specimen of pyometra shown last year by Dr. Matthews Duncan, where the case had run an apparently malignant course, and the wall of the uterus had ulcerated through, but in which Dr. Thin had reported only infiltration by pus cells, he had been permitted to make a microscopic examination. He believed that in that case also there was new growth and not inflammation.

Deformed Child.

Dr. MATTHEWS DUNCAN showed a child, born hydrocephalic, with only stumps of arms, and with deformity of both lower limbs. The right stump of arm was one and three-quarters, the left two and three-quarter inches long. The femora were short, flexed, rotated outwards, adducted ; so that the knees were within half-an-inch of the anterior superior iliac spine. The mother attributed the condition of the child to a fright in seeing a dog run over three months before delivery, and to her seeing the dog afterwards frequently in a deformed state. Four months before delivery she had a fall on the back.

Anencephalous Monster.

Dr. CULVER JAMES showed an anencephalous monster, in which the upper part, sides, front, and back of the cranium were wanting, as well as the arches of the vertebral column as low down as the angles of the scapulæ. The mother was twenty-six years old, and had had four children. There was no history of any fright during pregnancy.

Maternal Impressions.

Dr. HEWWOOD SMITH showed photographs of a young woman, aged eighteen, whose profile showed a remarkable concavity of the face, ending in a prominent under jaw. The mother had been frightened by a monkey about the fourth month of gestation. He remarked, that among animals it was at the moment of conception that the mother was supposed to receive an impression ; while in women a maternal impression was often referred to the third or fourth month.

Dr. BRAITHWAITE said that he had seen a puppy having a bifid and flattened forefoot, the owner of which said that during the mother's pregnancy a stone had fallen upon the foot and crushed it similarly to the flattened foot described.

Report on Dr. Godson's Specimen of Ruptured Tubal Fætation.

By Dr. JOHN WILLIAMS and Dr. GALABIN.

Chorionic villi were discovered. The clot lay in close contact with the muscular wall of the tube, without any layer of decidual cells. The apparent amount of cavity was only three-eighths of an inch in length, and it was thought that the embryo could not have

reached more than about three weeks' development. There was no corpus luteum, but only a cyst three-eighths of an inch long, containing a shrunken clot, in the ovary.

*Case of Chorea in Pregnancy treated by Dilatation of
the Cervix Uteri.*

By Dr. WADE.

An unmarried primipara, aged nineteen, nearly seven months pregnant, suffered from very severe chorea, which had commenced in a slight form three weeks before admission. A faint apex systolic bruit, probably due to rheumatic fever two years previously, existed. An attempt was made to dilate the os with the finger, but owing to the incessant and violent movements of the patient, the success was very partial, and there was, if anything, an exacerbation of the symptoms. Three days after, under chloroform, the dilatation was completely effected; this was followed during the day by very marked amendment and a sound night's sleep, the first she had had since admission, and every succeeding night was equally good. On the third day after, the movements became worse than they had been on the two preceding days, and dilatation was again effected on the fourth day under chloroform. From this time, steady, rapid, and unintermittent recovery. A very slight occasional twitching of the fingers of the right hand continued until delivery at term of a healthy child, when they entirely ceased.

Dr. ROUTH asked to what extent the os had been forcibly dilated? Was it in any way lacerated?

Dr. MATTHEWS DUNCAN also complained of the want of exact information as to what was meant by full dilatation. He regarded thorough dilatation, as he understood it, as a very sure cause of miscarriage.

Dr. AVELING had seen reflex vomiting from abrasion of the cervix uteri cured by the application of a solution of nitrate of silver, and thought medication should be first tried before dilatation.

Dr. FRANCIS TAYLOR related the case of a boy suffering from severe chorea, who was taken to Guy's, where he remained in the taking-in room for some time. He was not admitted, but on his return home, the choreic movements were found to have ceased, and did not recur. So sudden a recovery seemed inconsistent with so coarse a lesion as embolism, and the case also showed the need of caution in drawing conclusions as to therapeutics.

Absence of the Vagina : Uterus distended by retained Menstrual Fluid : Operation : Recovery.

By Dr. C. H. CARTER.

The patient, aged sixteen, had never menstruated. Pain had begun two years previously, and recurred almost daily. The urethral orifice was found large, the vagina absent ; by rectal examination the finger felt the sound in the bladder with only a thin layer of tissue intervening. About one-and-a-half or two inches up the rectum a rounded elastic mass was felt reaching up half-way to the umbilicus, about the size of the uterus at the third or fourth month of pregnancy. On July 25 the operation was performed for making an artificial vagina. After a slight longitudinal and lateral incision, the passage was chiefly torn by finger and director. Nothing like os or cervix uteri could be detected. The uterus was first punctured with the aspirator, and the opening then enlarged with a bistoury. About ten ounces of treacly matter escaped. Several ounces of treacly matter were afterwards expelled, and towards evening the dressings were soaked with fresh blood. The next day syringing out the uterus with carbolic lotion (1-80) was commenced. For about ten days there was some elevation of temperature and a rapid pulse (112-130), but the disturbance then passed off. When the patient went out on Oct. 11 the new vagina had narrowed a good deal, and only admitted the finger for three-fourths of an inch. Thick sounds were passed occasionally to keep open the passage into the uterus, and menstruation took place regularly after the operation. In October of the following year an examination was made, and it was found that the ordinary sound could not be passed into the uterus, but a small pointed one could be passed into it three and a half inches. The author expressed to the mother his opinion that marriage was inadmissible, since delivery could not take place *per vias naturales*.

Dr. GALABIN'S experience was that the difficulty of keeping an artificial vagina in a condition fit for married life and menstruation was considerable. He had had a similar case in which also no trace of os or cervix could be detected. An artificial vagina was successfully made, and the patient afterwards menstruated naturally. But the attempt to keep the passage of full size was defeated by the fact that the pressure of the dilator repeatedly caused an opening into the bladder, though without producing any continued incontinence of urine.

Dr. ROUTH said that in his own case the patient had not died from the operation, but from the rupture of another cyst. He believed that in most of these cases the vagina had originally existed, but became subsequently adherent. He thought so in his own case, from the ease with which he tore it open. He thought that the passage could be kept dilated by using sponge tents and subsequently Sims's dilators. The dilators should not be too large, and should not be worn more than a few hours at a time. They then would not cause inflammation. He mentioned a case in which Mr. Baker Brown had made a good artificial vagina, and the girl subsequently went upon town, and consorted with Life Guardsmen.

Dr. BRAITHWAITE said that there were two classes of cases of atresia, one being incomplete, a fistulous track existing. From the presence of mucous membrane in this, contraction was less likely. When the atresia was complete he thought that mucous membrane might be transplanted from the vulva, or from an animal, to prevent the tendency to contraction. In a difficult case the urethra might be dilated, and the finger kept in the bladder and thumb in the rectum during the operation.

Dr. GODSON said that he had that morning seen a young woman for whom he had reluctantly made an artificial vagina. There was no retention of menses, but she had married seven months since in ignorance of her deformity. Though a fortnight ago there was a capacious canal, it would now scarcely admit a pen holder. He believed that such failure was inevitable, and would not again operate unless there were retained menstrual discharge.

Dr. AVELING thought that Dr. Carter was quite right in dissuading his patient from marriage. He did not agree with Dr. Routh that the majority of cases of absence of vagina were due to inflammatory adhesion. In the three cases he had seen it was evidently congenital, as the uterus was also absent, though the ovaries were present.

Dr. CARTER, in reply, said that Dr. Emmett stated that the tendency to close depended upon the passage being made by cutting rather than by tearing. He did not think that the tendency to contract depended altogether upon the absence of mucous membrane, but rather upon the contractility of the tissues, since in his case a mucous membrane, like that of the labia minora, was noted in the new passage. He agreed with

Dr. Galabin that it was better to defer washing out the uterine cavity a short time. He did not recommend marriage in his case, because the end of the new vagina was closely attached to the margins of the opening into the uterus. No natural dilatation of this opening could occur in labour, but Cæsarean section would probably be necessary.

Case of Congenital Abnormality of Uterus simulating Retention of Menses.

By Dr. BRAXTON HICKS.

The patient, aged twenty-four, had never menstruated. About twelve weeks ago she had severe pain in right hypochondrium, lasting about four weeks. About the same time she noticed an increasing swelling in lower abdomen, and recently tension had become severe. On admission a tumour was felt reaching about to the umbilicus, tense and semi-fluctuating; causing distress and œdema of legs. She had not distinctly suffered from monthly increase of distress. The vagina was nearly of normal length, ending in a kind of transverse depression, beyond which was felt the tumour, exactly resembling the uterus distended with menses. The author had had such a case, apparently exactly similar, the very extremity of vagina and os uteri being closed. The patient was therefore placed under chloroform, and a trocar plunged in where a depression like a dilated os beyond the closure could be felt. Nothing but a little bloody serum flowed. The sound was then passed up into the centre of what seemed to be the uterus, but still no sign of menstrual fluid. Further interference was then abandoned, the tapping having been done antiseptically. In the night she became feverish, and died about thirty hours after the tapping. Post-mortem examination showed that there was neither uterus nor ovaries, but a large cyst attached to the upper end of the vaginal walls—very irregular within, smooth without. It was half filled with a cheesy white matter, and the rest with dark grumous material. The wall above was thinned and perforated in two or three places, where the contents, in a fœtid condition, had escaped into the peritoneal cavity. The trocar had passed through two layers of peritoneum. Probably the operation had only hastened the rupture.

A report by Dr. Galabin on the microscopic structures of the cyst was appended. The outer wall of fibrous tissue was only

about one-twelfth of an inch thick. The soft material within was made up of round cells, larger than leucocytes, having a fibrillar reticulum amongst them. It was to be regarded as a soft sarcomatous growth.

Dr. ROUTH said that the practical point which came out was that in another case the aspirator should be used, to see the nature of the fluid, if any, before the trocar was employed.

OBSTETRICAL SOCIETY OF EDINBURGH.

Meeting, Wednesday, 14th April.

Dr. ANGUS MACDONALD, *President, in the Chair.*

Dr. J. Jamieson, Dr Croom, and Dr. Hart showed specimens.

Three Cases of Parametritis, with Observations on its Diagnosis and Treatment.

By ANGUS MACDONALD, M.D.

Lecturer on Midwifery and Diseases of Women and Children in the Medical School ;
Physician and Clinical Lecturer on Diseases of Women, Royal Infirmary, Edinburgh.

So much importance attaches to the diagnosis, prognosis, and treatment of parametritis, that we are, I think, justified in recording from time to time cases of special interest belonging to that category. This must be regarded as my apology for laying the records of the following three cases before the Fellows of this Society.

The cases I am about to report are very different in character, in duration, and treatment. They all agree, however, in being examples of inflammatory mischief situated in the connective tissue that surrounds the uterus, or lies between, and gives support to, the various pelvic viscera. With these preliminary remarks I proceed to record the cases.

CASE I.—A. M., from Lochee, aged thirty-one, admitted to Ward XVI., June 24, 1878, stated that she had been married, had had five children and one miscarriage. She complained of gradually increasing debility, with loss of appetite and leucorrhœa, which had existed for two years, and also of suppression of menses for the last three months. Her husband died two years ago, shortly after which she was confined to bed for three months from pain in the

lower part of the abdomen, and treated by an American medical man, who used, among other measures, a Hodge's pessary. There-upon a hard, resistant body, as large as a hen's egg, formed, and could be felt by external manipulation. On examination after admission, the patient was seen to be rather thin, but all organs except the pelvic were normal. Examination per vaginam detected behind the uterus a large, unyielding mass, closely soldered to the uterus, and somewhat tender on pressure. The uterus itself was observed to be displaced upwards and forwards by the pressure of the mass, and squeezed against the arch of the pubes. The cervix was healthy, but deeply divided transversely in its vaginal portion. The sound passed fully $2\frac{1}{2}$ inches into the uterine cavity, in a direction upwards and forwards. The uterus was completely fixed by the mass, which was smooth in outline, tender, and resistant. Per rectum the mass could be felt, forming a firm, resistant arch closely applied to the anterior wall of the bowel.

The urine was examined and found normal. A week after admission the patient had a rigor, with slight elevation of temperature, and on examination it was found that the tumour had increased in size and pressed the uterus more downwards as well as forwards. No trace of softening at any part of it could be detected. A week later the tumour came to project so far down in the posterior cul-de-sac of the vagina as to reach close to the perineum, the uterus meanwhile being pressed more and more tightly against the posterior aspect of the pubic arch. The upper border of the pelvic swelling could be distinctly traced, on the left side reaching barely to the level of the ileo-pectineal line, but on the right extending upwards and outwards so as to occupy part of the false pelvis.

On 17th July an obscure feeling of fluidity was felt on double manipulation (abdomino-vaginal), and suppuration was accordingly suspected. An exploratory trocar was introduced per vaginam into the swelling at a point to the right and somewhat posterior to the cervix uteri. About a tablespoonful of stinking pus escaped through the canula. The latter was then withdrawn, a straight bistoury introduced, and a free opening made for the escape of the discharge. Although at the same time pressure was made upon the swelling outside, very little pus escaped after the knife was removed. The temperature rose in the evening to 102° , and next day the patient retched a good deal, but there was no abdominal distension and no tenderness. Poultices were

applied to the abdomen, and a quinine and iron mixture ordered.

On 20th July the ward record states that the inflammatory swelling has diminished in size considerably, and that a purulent discharge is going on from the opening, unaccompanied by any pain. In the evening of that day, however, the patient became sick and vomited, and the temperature rose to $103^{\circ}2$, her pulse to 104. There was also considerable diarrhoea. To arrest this she was next day ordered tinct. of rhubarb and Battley's solution of opium. To have iced brandy and water with milk.

On 22nd July the abscess cavity was again punctured by a trocar, and the opening subsequently enlarged by a bistoury, when about $1\frac{1}{2}$ ounce of pus was removed. The interior of the abscess was washed out with carbolic-acid solution 1-100, and a drainage-tube inserted to maintain free discharge and lessen tension. The pus was extremely putrid, and contained many round bacteria. The patient's condition improved greatly, while a profuse discharge of foetid pus continued to flow from the vagina notwithstanding frequent disinfection of the abscess cavity with carbolic lotion, the strength of which was gradually increased to 1 in 20. The urine was from time to time examined, and found of dark colour, with a faint trace of albumen. It deposited, on standing, only a small amount of mucus and pus.

Up till the 4th of August the patient continued to improve, the syringing being repeated every other day, and the discharge continuing tolerably free, but foetid. But on the evening of that day a feeling of coldness came over her, and her temperature rose considerably. Her breath assumed at the same time the characteristic new-mown hay odour; there were clammy sweats, and, in short, the usual symptoms of septic infection. Accordingly, at visit on the following day, the patient was put under chloroform, the opening much enlarged towards the left and posteriorly by a bistoury, and the cavity entered and freely explored by the finger. The abscess was found to pass behind and to either side of the uterus to an extent farther than it was possible to reach by the examining finger. The foetor of its contents was simply abominable. Its cavity was now thoroughly washed out with carbolic acid solution, and a large drainage-tube inserted. That evening the temperature rose to 104° , and considerable vomiting occurred; but next day the patient was found much better, with a normal temperature and nearly normal pulse.

The drainage-tube had dropped out in the course of the night, but the discharge had manifestly free vent, so that it was not replaced.

From that time the patient progressed slowly but steadily towards recovery, the opening remained patulous, and the discharge continued in considerable amount, gradually, however, losing its fœtor. The swelling contracted, and the uterus had nearly regained its normal position in the pelvis when the patient was discharged, on the 17th of October, to the Convalescent House. After a short residence there she returned to Dundee in good health, there being no trace of the previous extensive inflammatory swelling, except some fulness fixing the uterus posteriorly to the back wall of the pelvis, near the junction of the body and cervix.

This case seems to me to be important in several particulars. It will be noted that the disease appears to have originated in the irritation excited by an ill-fitting Hodge's pessary. Whether or not there had existed a retroversion at the time the pessary was introduced warranting its employment, it was impossible to decide after we saw the patient, as the bulk of the retro-uterine swelling had by that time placed the uterus in a position of extreme anteversion.

The case is, however, one among many evidences that could be produced, from a careful record of suitable cases, of the possible dangers that follow in the wake of the application of even such a harmless and useful instrument as a Hodge's pessary, when due care is not taken to prepare the parts for the pessary, and to make sure that the instrument is accurately adapted to its situation.

Before adjudging a Hodge's pessary for retroversion, it is in the highest degree necessary to make certain that no inflammatory congestion or irritable condition of the body and fundus uteri is present. If such there be, this must be reduced before the pessary be applied. The methods for its reduction are various. Leeching the cervix may occasionally be needed, but that is rare. All that is ordinarily required is the use of hot-water injections night and morning, and the introduction of a plug of cotton wool steeped in glycerine each night. In the course of a week or ten days the fundus is reduced in size, and the tenderness is made to disappear, so that a pessary may be safely introduced, and, unless the uterus is fixed in position by adhesions so as to be irre-

placeable, will be well borne, and will prove a very great advantage. Extreme care must be taken always that the uterus is thoroughly replaced, and that the posterior limb of the instrument does not press unduly upon the fundus, or project into the bend of a retroflexed uterus. If the uterus cannot be completely replaced, it is, I think, better to use a Galante's flexible ring pessary than a rigid instrument such as Hodge's. No doubt the uterus is not so well kept in position, but a certain amount of relief is afforded, as the pain resulting from dragging of the uterus upon its pelvic attachments is greatly obviated.

We are next led to make some remarks upon the diagnosis of this class of case.

Before attempting to point out the essentials to the differential diagnosis, it may be serviceable to refer in a word or two to the anatomical connexion of the parts involved in the separate affections. It will be noticed that, so far as the uterus is concerned, there are at least six localities in which there may be formed parametritic deposits. For, 1st, we notice that in front of the uterus the peritonæum is reflected at a level at least as high as the internal os uteri, leaving the entire length of the cervix bared of peritonæum, and connected with the neck of the bladder by a plentiful layer of loose, fatless, excessively vascular connective tissue, which is specially adapted to be the nidus in which inflammatory action may be situated in the case of appropriate stimulus. 2nd, The peritonæum, though covering the entire length of the uterus posteriorly, and even extending to a variable but always considerable extent over the upper part of the vagina, is so altered in its relation to the organ at or about the level of the internal os, as to leave a thick layer of subserous connective tissue equally adapted as the part in front to become the seat of inflammation. 3rd, On each side of the organ there is found a space, triangular in shape, with its apex at either Fallopian tube and its base at the reflection of the vagina on to the uterus, which is not covered by peritonæum, is rich in blood-vessels and connective tissue, and thus is a fit seat for true parametritis. 4th, And lastly, between the layers of either broad ligament, particularly at the lower part of them, there is abundance of highly vascular loose connective tissue, in which inflammation may readily be set up. Inflammation situated in these latter positions is very frequently called phlegmon of the broad ligament. Thus, in front of the uterus, behind it, on either side close to the organ, and on either side

more or less removed from it, we may have parametritis established.

It will be observed, however, that the situations in which such inflammation may take place, with the exception of the top of the triangles by the sides of the uterus, are low down in the pelvis; and as the upward advance of the inflammatory deposit meets the resistance of the unyielding peritonæum, the tendency of such inflammatory swelling must be to proceed downwards in the direction of the looser vagina. It follows from these considerations that parametric inflammation must of necessity be low placed and limited. The site of perimetric inflammation, again, involving as it does the entire surface of the pelvic peritonæum, though it dips deeply down between the bladder and uterus in front and the uterus and rectum behind, is subjected to no such restrictive influence tending to cause it to descend or to keep low down. It may and does rapidly spread, not only over the entire pelvic peritonæal surface, but upwards into the general peritonæum, running from coil to coil of intestine, and matting these together in a common mass, forming thereby a tumour which often extends as high up as the false ribs.

Besides this, the peculiar manner in which the peritonæum dips down into the pelvis around the uterus, in itself communicates a sort of arched-roof shape to the hardening occasioned by a fibrinous perimetritis, which is of itself diagnostic.

Having premised these particulars, we come now to gather together the chief points that help us to establish a differential diagnosis.

1st. It may be held as agreed on all hands that injuries and diseases affecting the upper part of the vagina and the cervix are more likely to set up a parametritis than a perimetritis, and that injuries or diseases of the body and fundus are more likely to be accompanied by perimetritis. The history of the onset of the affection and of its accompanying lesion ought, therefore, to prepare us for finding the one rather than the other lesion present.

2nd. High position in the pelvis, and still more high position in the abdomen, indicate that the lesion is perimetric; whilst low position in the pelvis, and a tendency to hug the pelvic walls, and, as it creeps upwards, to cling to the bones and extend into the iliac fossæ, or to penetrate towards the buttocks through the ischiatic notch, tend to establish that the tumour is parametric.

3rd. In estimating the importance of the high position of the inflammatory deposit, too much value can scarcely be put upon the relation of the vaginal portion of the cervix to the swelling. In the case of perimetric swelling the cervix uteri projects into the vagina with its full length, and consequently extends considerably below the level of the lowest part of the mass. But if the case is parametric the cervix appears to be shortened as the inflammatory mass works its way downwards around the cervix. Consequently, the vaginal portion does not project along any part of the swelling, but may even fall behind it, or the outer os may be only flush with the surface of the lowest part of the inflammatory mass. This was particularly the case in the present instance, where it is noted that the inflammatory mass posteriorly projected downwards to near the vulva.

4th. Then it is well known that inflammation of the peritonæum is more apt to be associated with troublesome vomiting than inflammation which is extra-peritonæal. The occurrence of vomiting in the course of an attack of pelvic inflammation is a strong indication that, if the inflammation had not already reached the peritonæum, it has done so coincidently with the onset of the vomiting. But too much stress cannot fairly be put on this symptom.

5th. The mode of upwards spread of the inflammatory action is also of great value. A pelvic peritonitis may spread at its wild will over the peritonæum. A parametritis must follow the disposition of the tissues in which it finds its nidus. It may spread along the anterior abdominal wall, selecting as its favourite direction the leading of the round ligament of the uterus, or it may follow the lead of the psoas, rising high in the posterior regions of the abdomen into the neighbourhood of the kidney, or it may occupy the iliac fossa, or burrow through the sacro-sciatic notch to the gluteal region. These points are of importance in guiding us in regard to the extension upwards of the diseases.

6th. Lastly, the knowledge of the sites in which the pabulum for parametric inflammation is placed in the pelvis makes it probable that parametric disease shall be more localized in its nature than perimetric. Consequently, when we find a single inflamed localized mass behind, in front, or by the side of the uterus, the presumption is in favour of the view that it is of parametric nature rather than that it is perimetric.

With these remarks I proceed to the report of the second case, which is as follows:—

Mrs. M——, aged thirty-one, was sent to Edinburgh in the month of December, 1879, by her medical attendant, to consult me regarding a recent onset of menorrhagia which had troubled her for several months. These attacks had been preceded by a suspension of menstruation for two months. The patient's medical attendant was in doubt whether she might not have had a miscarriage which had come imperfectly away, or whether there was not some intra-uterine polypus. It may be stated that she had been married for several years, had given birth to one child, but had since been sterile. Her recovery from her single confinement had been slow, and was accompanied by symptoms that serve to show that she then suffered from suppurative parametritis.

On examination on December 12, 1879, the uterus was found to be large and somewhat anteflexed. The cervix uteri was decidedly hypertrophied and soldered to the posterior wall of the pelvis by some thickening, evidently of an old nature, as there was no trace of tenderness in it on free manipulation. The outer os of the cervix was patulous. There was no tenderness in the neck or body. Both broad ligaments were clear, and the fundus and body freely movable. The sound passed fully three inches in a direction upwards and forwards, and caused no pain. Finding it impossible to establish a decided diagnosis without exploring thoroughly the interior of the uterus, I decided to dilate the cervix. It appeared to me that the retro-uterine thickening was scarcely to be regarded as a contra-indication to this proceeding, inasmuch as all acuteness had left it years ago, so far as I could ascertain. I accordingly proceeded to dilate the cervix by means of tangle tents. It was found a little difficult to effect this object, as the tangle tent proved too short for the elongated cervix. Accordingly, whilst the cavity of the cervix yielded well to a large tangle tent, the inner os was still found impermeable to the finger. This tent was left in for twenty-four hours; it was then removed and the vagina and cervix well cleansed by means of an antiseptic wash; and as there was no reaction and little pain complained of, a sponge tent was now introduced through the inner os and allowed to remain for nearly twelve hours, so that admission was freely effected into the uterine cavity in the course of thirty-six hours. There was no distinct polypus found in the interior of the organ; but over the right side of the cavity of the uterus, and also over part of the anterior surface, the mucous membrane was distinctly roughened, irregular, and granular to the feel. Dr. Playfair,

who assisted me in the case, examined the uterus and confirmed this observation. I now scraped with the finger, as well as with a strong copper curette, all that could be got from this surface, and, having washed out the uterine cavity with a double catheter, put the patient to rest. There was a rigor next day, and on examination the uterus felt tender, but any threatening of metritis that presented itself disappeared in the course of a day or two; the pulse kept high, however, varying from 96–110, and the temperature rose to about 102°.

There was much rectal catarrh and tenesmus, the discharge being not faecal, but absolutely pure colourless mucus. There was no repetition of the rigor, and there was no vomiting nor abdominal distension. There was, however, pain over the uterus, and the gradual formation of a large lump behind the neck and to the left side of the uterus. This lump projected against the front wall of the rectum, and distended the lateral reflections of peritonæum forming the inferior part of the fold of Douglas, so as to compress the bowel and induce the catarrh and tenesmus. The swelling could also be felt creeping up towards the pelvic brim on the left side. Poultices, rest, and morphia suppositories were used to relieve symptoms. On the evening of the 1st of January, 1880, as there was now manifestly fluid in the retro-uterine mass, and as I feared the formation of a rectal fistula, I asked Dr. Playfair again to assist me whilst I aspirated the tumour from the vagina. The aspirator drew about four ounces of pus from the cavity of the abscess. The foetid odour was perfectly disgusting. When examined the pus was found loaded with bacteria, but they did not appear active. The patient was very much relieved, and passed a good night. Her rectal troubles were nearly quite gone.

Next morning, the 2nd of January, the patient was anæsthetized with chloroform mixed with three parts of absolute ether, and the retro-uterine abscess freely opened from the posterior cul-de-sac of the vagina, care being taken, by means of a finger in the rectum, to guide the knife so as to avoid injuring the bowel or uterus. There was a considerable discharge of pus and blood. The cavity of the abscess was freely explored by the finger, and found to have somewhat irregular walls, and to be of considerable extent. The adhesions in its cavity were at the same time broken up. It was now thoroughly washed out with solution of carbolic acid through a double catheter, and the patient put to rest.

There was some abdominal distension complained of in the afternoon. As this was clearly due to flatulence, the direct result of the recent obstruction to action of the bowels, a dose of castor-oil was administered at night. This produced several copious evacuations and a complete removal of the distension. Ever after there was an entire subsidence of all disagreeable symptoms. Pulse and temperature returned at once to the normal. The tongue, which had been coated, became clean, and the appetite excellent. The only trace of the parametritis that remained was the thickening observable by double manipulation, and a slight degree of tenderness on deep pressure over the left side of the pelvis.

The cavity of the abscess was washed out daily for five or six times by means of a double catheter, and then for a few days at intervals of two days. It discharged freely and contracted rapidly, the fœtor rapidly disappearing. The patient was up and going about by the 12th of January, out on the 18th, and left by train on her way home on the 21st. Nothing remained as evidence of the abscess and large amount of exudation behind and to the left of the uterus except a slight degree of thickening towards the left and posteriorly, similar to what was there when I first saw her.

Considering the great trouble that usually accompanies the discharge of a parametric abscess into the bowel, bladder, or uterus, or when it perforates the abdominal wall, it becomes a question of great practical import how early a parametric abscess ought to be opened, and where.

I have seen, in consultation and otherwise, no small number of parametric abscesses that have spontaneously discharged their contents into the bowel. I have also watched a smaller number of these which have opened into the bladder or have penetrated the abdominal wall. But my experience is not favourable to allowing such a termination to a parametric abscess, provided it is in our power to prevent it. They have, when such a result has been allowed, run a very chronic course, leading to great exhaustion, slow recovery, and much discomfort to the patient. In one case I have seen fatal results follow in the train of an abscess that burst into the bladder; and in another that burrowed its way through the left ischiatic notch and pointed in the gluteal region a like result followed.

An important objection to permitting spontaneous opening is

the danger that the abscess shall open into the bowel or viscera under conditions unfavourable for complete evacuation of the contents of the tumour. Consequently the disappearance of the abscess is slow and unsatisfactory. There is also another important reason why we should empty these abscesses early, and it is that they are so liable to become putrid although not communicating with the external air.

A difficulty that was wont to exist—viz., uncertainty as to whether there is or is not pus in a given pelvic tumour—is now removed. We can, without risk, if we employ ordinary care, aspirate any such tumour, and determine with ease whether it contains blood, serum, or pus. That being so, the course of action is wonderfully cleared; and I must say that, although I well know it is a disputed practical point, I am from experience prepared rather to cast in my lot with those gynæcologists, such as Thomas, who advocate early and free incision of pelvic abscess, than with such as Becquerel, who object to that measure. I think, moreover, that the two cases recorded are important contributions to the history of distinctly unpromising cases which have been successfully treated by free incision. Accordingly, I should wish to be regarded as supporting the recommendation of those who urge evacuation of such tumours through the vagina, if possible, so soon as it is proved that pus is present in the mass.

In the case of collections of serous effusion—but this is usually found in cases of perimetritis—there is little if any need to interfere by incision. Such collections of serum usually disappear spontaneously.

But I must now hasten to consider the third case, which belongs to a very common class of parametric inflammation, I mean puerperal. The record runs as follows:—

M. H., twenty-five years of age, was admitted to Ward XVI., Old Royal Infirmary, on June 3, 1879, complaining of exhaustion, with severe pain in her right side. The commencement of her illness dates from her confinement, which occurred two months ago. She states that it was prolonged and difficult, but terminated spontaneously. On examination tenderness was found on pressure, and dulness on percussion in the right iliac region, where also a tumour could be felt extending over a triangular area bounded superiorly by a line passing from the spine of the left pubic bone to a point an inch below and two inches to the right of the umbilicus, thence by another line to a point in the right iliac crest two inches behind the

anterior superior spine, whilst the third side was formed by the anterior portion of the right iliac crest and by Poupart's ligament. On examination per vaginam the uterus was found partially movable, but displaced towards the left and posteriorly; the bladder also was pressed deeply downwards. To the right of the uterus, but not specially connected with it, occupying the right half of the inlet to the pelvis and part of the abdomen, a tender mass could be felt about half the size of a child's head, apparently made up of inflammatory exudation. There was only slight fulness and increased resistance on the left of the uterus. On introducing the sound with the view of establishing, if possible, the exact relation subsisting between the inflammatory swelling and the uterus, its point was felt to suddenly perforate the uterine wall at or near the fundus. There was no unusual force being exerted at the moment. Unmistakable evidence of the fact of perforation was obtained, for the point was carried forwards and brought to impinge against the anterior wall of the abdomen, close to the umbilicus, where it could be readily and easily felt, whilst the heavy uterus maintained its original position low down in the pelvis. There was no special pain complained of from this accident. The temperature in the evening rose to 104° , but fell the next morning, and there was no other symptom indicative of any result good or bad from the perforation of the uterine wall. Rest and poulticing constituted the treatment adopted.

On the 8th of June the swelling had extended considerably, being more marked anteriorly and towards the left than on the former examination, and a certain proportion of the mass was noticed to pass behind the uterus. Quinine and iron were prescribed, and a blister applied over the right groin.

On examination, June 12, the thickening in front of the uterus was found somewhat diminished, the uterus tolerably movable, and its fundus, felt lying somewhat towards the left of the principal inflammatory mass on the right side, was freely movable. The inflammatory swelling on the right side, as a whole, was ascertained to be slightly movable, but pretty firmly attached to the right side of the pelvic wall. It appeared to occupy the position of the greater part of the right broad ligament, diminishing in size with that structure as the latter approaches the uterus. Something like obscure fluctuation was detected on double manipulation (abdomino-uterine).

On the 19th of June, the temperature having risen to 103° , sup-

puration was suspected, and the aspirator needle passed from the groin into the centre of the swelling in the right broad ligament. No pus, and only a small quantity of blood, was drawn off.

On the 30th of June the thickening behind the uterus and to its left had almost entirely disappeared, while the mass on the right side still remained firmly adherent to the lower and anterior part of the right iliac fossa. No indication of a spot of softening could be felt per vaginam in any part of the swelling. The patient was ordered quinine and iodide of potassium. On the 15th of July the left side of the pelvis was found to be quite clear, the uterus tolerably movable, with its fundus dragged towards the swelling on the right. The tumour was much shrunken, and somewhat movable towards its inner side, but fixed to the pelvis at its outer aspect.

On the 24th of July the uterus was found displaced upwards and forwards towards the right, where the fundus was attached to an oblong structure about $2\frac{1}{2}$ inches long by $1\frac{1}{2}$ inches broad, the remains of the previous inflammatory exudation. A well-bent sound passed into the uterus $2\frac{1}{2}$ inches in a direction upwards and towards the right. The patient was dismissed cured on the 31st of July.

The case above described is one of common occurrence. It was a parametric phlegmon, at first affecting chiefly the right broad ligament, but ultimately extending to the right iliac fossa, to the connective tissue between the neck of the bladder and the anterior surface of the cervix uteri, as well as behind the cervix and slightly towards the left. The record of the case fully bears out the accuracy of the views already explained in this paper in regard to the anatomical conditions that regulate the spread and extension of a parametric inflammation. The case is also of interest in so far as it demonstrates the tendency which parametric inflammation shows of establishing itself in a limited part of the pelvis, as compared with the peculiarity which perimetritis possesses of spreading rapidly over the entire pelvic peritonæum. It also brings to mind another fact that I have not as yet very specially explained—viz., that parametric inflammation is that form of pelvic inflammation which is most liable to follow delivery. But the points of most importance in this third case are two: 1st, It demonstrates that the uterus may be perforated without any serious consequences following; 2nd, That the aspirator may be freely used in pelvic cases as a means of diagnosis,

without risk of injury following its employment. There was not the slightest doubt that the uterus was perforated in this case, and yet the only symptom which arose was a very transient elevation of temperature, much more likely to have been occasioned by the physical explorations as a whole than to be referable to this accident.

Again, had I plunged a bistoury, or even inserted an ordinary exploratory trocar, into the swelling in the present instance, even when from careful manipulation of the tumour and examination of the collateral symptoms, especially of the temperature, I had come to the conclusion that there was most probably pus contained within it, I have very little doubt but that my patient would have suffered severely from the interference. As it happened, however, the absence of suppuration was proved, and the patient saved from any harm. It is perfectly surprising with what freedom we may aspirate abdominal tumours without causing injury.

Only a short time ago a patient in the Royal Infirmary suffered disagreeable symptoms from the pressure of two encysted masses that projected downwards and forwards, one on each side of the spinal column. These were both aspirated anteriorly, and found to contain pus. The aspirator on both occasions traversed the peritonæal cavity, whatever else it traversed, as the masses were clearly retro-peritonæal in situation, and yet there was only relief afforded, and not a trace of harm. Relief resulted from the removal of tension, as twenty ounces of pus were drawn from the one tumour and twelve from the other. In the aspirator, therefore, we have an important aid in the diagnosis of the exact nature of pelvic tumours, which places us at a great advantage compared with our confrères when the exploratory trocar was the best method to adopt. But I must bring my remarks to a close by again expressing the hope that the record and criticism of these examples of a well-known lesion may not be altogether without some value to the Society.

Dr. C. E. Underhill, Dr. Croom, Dr. James Young, Dr. Hart, Dr. James Carmichael, Dr. Gordon, Dr. James Ritchie, and Dr. George Dickson took part in the discussion; and Dr. Angus Macdonald replied.

EPILOGUE.

WITH this Number terminates the existence of THE OBSTETRICAL JOURNAL. Founded in 1873 at the suggestion of Dr. Aveling, and first edited by him in conjunction with Dr. Wiltshire, it subsequently enjoyed the editorial control of Dr. Galabin, and, on his retirement, of Dr. Herman. To all these gentlemen the publishers are indebted for their earnest endeavour to make the Journal worthy of its aim as expressed in its title, while they owe scarcely less to the many contributors whose valuable Papers are found in the eight volumes which have appeared.

But while it has been acknowledged that the Journal has worthily represented Gynæcological Science in this country and has been appreciated abroad, as is evidenced by the number of Continental subscribers and by the issue in America of a large edition, the support given is insufficient to keep the Journal in a paying condition. At the commencement of this year the price was reduced, in the expectation of thus increasing the subscription list. This hope not having been realized, no other course seems open than with regret to discontinue the Journal.

 BOOKS, PAMPHLETS, &c., RECEIVED.

"The Structural Anatomy of the Female Pelvic Floor." By Dr. D. B. Hart. (Simpkin, Marshall & Co.)

"Clinical Society's Transactions." Vol. XIII. 1880.

"Observations on Cæsarean Section, Craniotomy, and on other Obstetric Operations." By Dr. Thomas Radford. Second Edition. (J. & A. Churchill.)

"Beobachtungen und Untersuchungen aus der Gebäranstalt zu München." 1859-1879. Von Dr. Carl von Hecker. 1881.

"The Dangers incident to the simplest Uterine Manipulations and Operations." By Dr. George J. Engelmann. (Reprint from "Transactions of the Missouri State Medical Society." 1880.)

"Time of Conception and Duration of Pregnancy." By Dr. George J. Engelmann. (Reprint from the *St. Louis Courier of Medicine*.)

"Inaugural Address delivered in the Mater Misericordiæ Hospital." By Dr. Thomas More Madden. Dublin. 1880.

NOTICE.—All the Back Numbers of this Journal may be had of the Publishers direct, or through any Bookseller.

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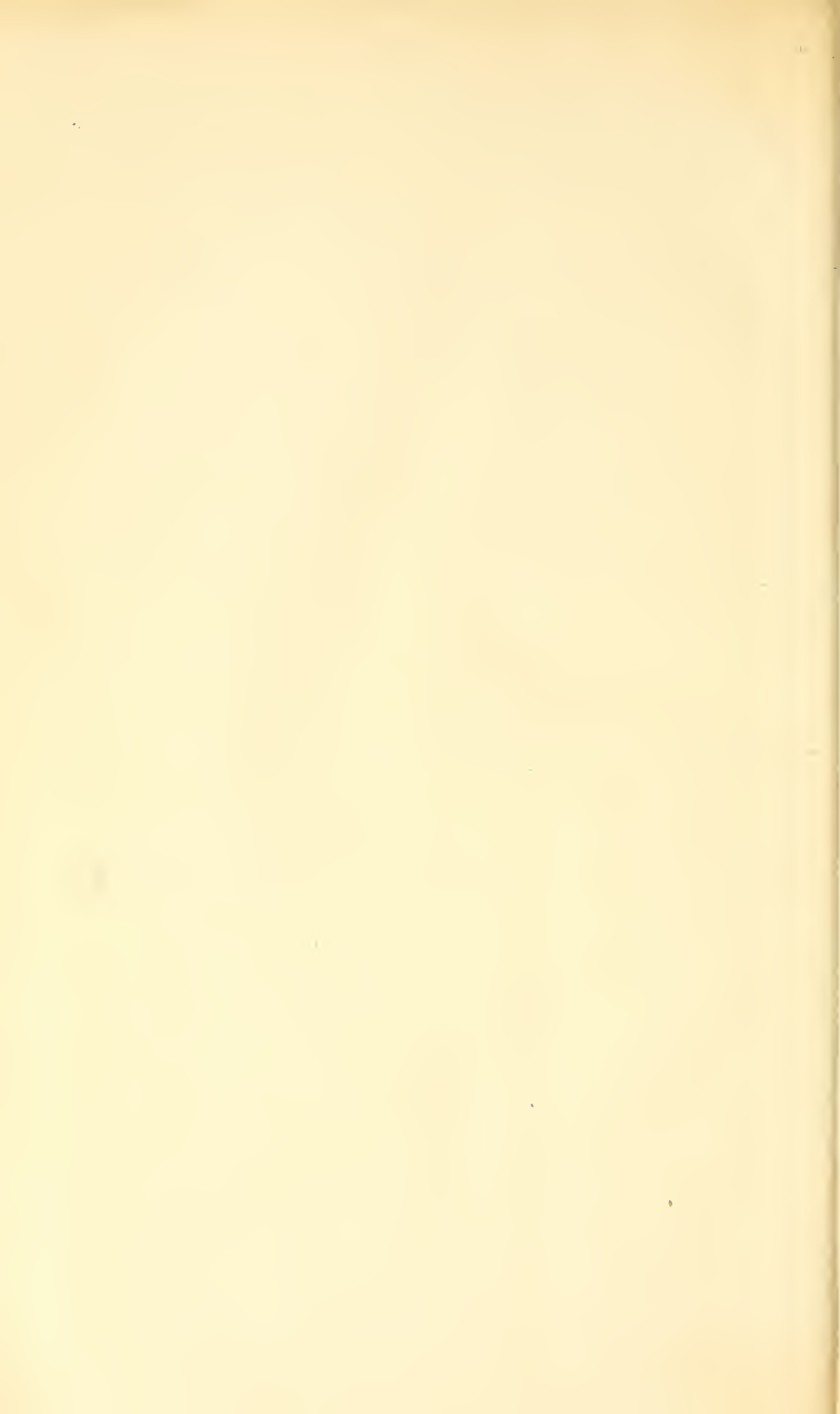
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